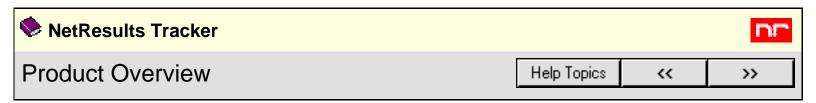


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Welcome to **NetResults Tracker** ™.

<u>NetResults Tracker</u> is a powerful, easy-to-use Web-based collaboration tool to help companies keep track of business issues and automatically manage them to resolution. Tracker is licensed for use by over 1000 companies (with 40,000+ users) in over 30 countries around the world. It is used for applications including:

- Bug tracking, defect tracking, issue tracking, and quality assurance (QA)
- Life cycle management in software, hardware, and product development
- Change management and enhancement request management
- Process management
- Self-service customer support
- Help desk

Our customers are from a broad base of industries, including broadcasting, consulting, entertainment, financial, government, hardware, health care, manufacturing, pharmaceutical, retail, software, system integration, telecommunication, and transportation.

Tracker is a fully Web-based system providing:

Tracking

Tracking reported bugs, defects, business issues, enhancement requests, etc.

Workflow

Automatic routing and notification to get issues resolved.

Process enforcement

Managing and enforcing your company's process of resolving issues.

Status

Up-to-the-minute project information and status, reports, charts, and graphs to team members, project leaders, and managers everywhere to foster better communication and collaboration.

Communication

Capturing discussions and sharing knowledge.

Accountability

History and audit trail.

Tracker is very cost-effective. Most installations can recover the investment in a few short months through the increase in productivity, through the better products produced, through improved customer satisfaction, or simply by not forgetting to include the fix of an important bug in the next release.

Tracker is highly customizable and can be tailored for virtually any workflow and environment. It comes with several pre-defined database templates, each designed for a specific product area. Those currently included are:

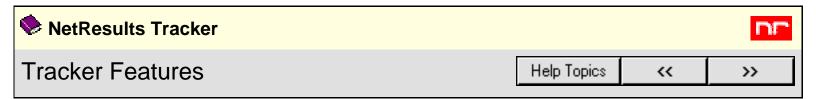
Product Development

- Web Site Development
- Knowledge Base (requires purchase of Knowledge Base add-on)
- Help Desk
- Support
- Base
- Change Management
- Development, Support and Knowledge Base

Tracker greatly simplifies the task of setting up and using an issue tracking system. Since you access Tracker using a standard web browser, there is no special client software to install or administer. In addition, users on all platforms have full access to the system without any special platform specific client software.

Tracker also uses industry standard web server, web browser, and database technologies so you aren't tied to a proprietary web server, client (browser), or database.

Tracker is available in two versions: Tracker Standard Edition and Tracker Enterprise Edition. Tracker Enterprise Edition includes all of the features of Tracker plus some additional features such as <u>Alerts</u> and <u>Discussion</u> to provide improved support for enterprise wide use.



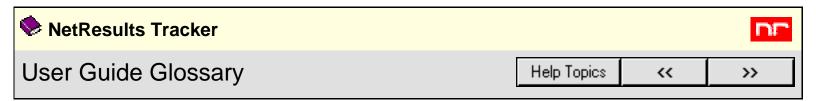
Features

- Completely web based solution no proprietary client software is required.
- Customizable without any consulting required the workflows, forms and fields can be changed completely by a Tracker Admin user.
- Customizable look and feel options to integrate application with your web site and branding
- Flexible user group security model allows defining access to both operations (Add, Edit, Delete, etc.), projects **and** records.
- Individual user log in and session state ensures security.
- A "Home" page presented after login for each user allows instant access to records each user has submitted, records assigned to them, and all functions required to process records.
- Can add, remove and rename all fields in the record.
- Ad hoc query mechanism allows unlimited combinations of any record field to form queries on the bug database.
- Advanced query mechanism to build intricate queries using comparison and logic operators as well as nested clauses.
- Customizable report layouts can be saved by each user of the system or shared with other members of a user group.
- Queries and Metrics (charts) can be saved by each user of the system or shared with other members of a user group.
- Knowledge Base feature can be set up to allow end users to search for procedures, best known methods, tech notes, etc.
- Options to allow records to be added to Tracker via email or an external form used to anonymously submit issues
- Unlimited number of attachments of any file type can be uploaded for each record.
- Integrated email can be configured to notify on a change of state or assignment; triggered by other
 actions performed on a record such as delete, edit, or task; to alert users of deadlines or call attention to
 records that are overdue; and can be set to notify users about new messages posted to discussions
 about a record.
- Powerful "Task" feature allows users to presented with only those fields required by the defined
 workflow when marking their task complete. Tracker automatically advances the state and reassigns the
 record as defined by the workflow. "Task" allows all members of the team to follow their department's
 process, without any specific knowledge of the process as a whole.
- Capability to create, maintain and report on multiple projects, forms and workflows in a single workgroup (database)
- Link Fields can be configured to provide references from one record to another
- Capability to create and maintain an unlimited number of workgroups (databases) from a central interface.
- Source code control integration to associate source files with problem records.
- Multinationalization available to support Unicode character set.
- Record history keeps a audit trail of activities for all incidents.
- Can add/remove/edit users of the system.
- Self registration option enables a large number of users to quickly create new accounts with minimal Admin intervention

- Can add/remove/edit values for all fields that have a set of allowed values. Examples include product, platform, release number, etc.
- Uses industry standard database technology.
- Separate Administrator functions are also accessed via a web interface. No proprietary administrator software is required.
- No extra database software is required.

For Further Information

For further information on NetResults Tracker, please browse to our web site at www.NetResultsTracker.com. There you can find the latest product, ordering, and support information.



Glossary of Terms

Account Info - A link on the Home Page where you can update your user profile information such as address, phone number, email address, etc.

More information: <u>Account Information</u>

Add & Copy - The operation on the Add Page that allows you to add a record while saving the information currently entered in the fields on the Add Page that can be used to submit another record.

More information: Adding Records



Add Page - The page where a new record can be submitted to the system.

More information: Adding Records

Add Similar - The operation on the View Page that allows you to add a record using the information from the record you are viewing.

More information: Viewing Records

Alerts - Per-record email notifications triggered at a particular date & time, or relative to a date field or when there is a lack of change of status within a certain period of time.

More information: Alerts (Enterprise Edition Only)

Attachments - Files or links that can be added to a record.

More information: Record Attachments

Calendar - The icon that can be used to display a calendar for selecting dates. Click on the day to select the date to be entered into the date field. Click < or > to move backward or forward one month or click << or >> to move backward or forward one year. Click Now to set the date field to be the current date and time. Click on Exclude Time if you want to exclude the time information from being saved in the date field. For a field where the time information has previously been excluded, click Set Time if you wish to include the current time information in the field. Click OK to choose the highlighted date to be entered into the date field. Date will be selected and calendar dismissed when a date is clicked when the time is excluded. Dates displayed in red are non-business days according to the Business Days option in the Preferences section. Click Cancel to dismiss the calendar without saving changes.

Child Pulldown - A pulldown which is dependent on a parent pulldown. When an option menu item is selected in the parent pulldown, only the option menu items related to the item in the parent pulldown will be available in the child pulldown.

Clone - A duplicate of a record created using the Cloning feature.



Delete - The operation which you can use to mark a record as deleted.

More information: **Deleting Records**

Dependent Pulldowns - The feature that allows a relationship to be created between pulldowns. When an option menu item is selected in a parent pulldown, the values in a child pulldown are limited to only those option menu items that are associated with the value selected in the parent pulldown.



Discuss - The area where you can view, reply or start a new discussion thread for a record.

More information: <u>Discussions</u>

<u> D</u>

Edit Page - The page where the <u>fields</u>, <u>attachments list</u>, <u>source code list</u> and <u>alerts settings</u> for a record can be modified.

More information: **Editing Records**



Fedit Records - The icon that can be used to edit a set of query results.

More information: Querying Records

Export - The Export link can be used to export report data from the reports on the <u>History</u>, <u>Home</u>, <u>Query</u> or <u>Metrics</u> pages.

Field - A part of the form where data is collected. Fields are created by your Tracker Administrator.

Field Help - Placing your cursor on this icon in the Add, Edit and Task will display additional information about each field. Field Help can be enabled / disabled via the Preferences page.

Form - A set of fields that combined make up a particular "record". For example, if you are using Tracker for issue tracking, the fields that are filled out on the Add Page are part of the "form" for submitting issues into Tracker. Your Tracker Administrator may have set up multiple forms (e.g. one form for submitting bugs and a

separate form for submitting enhancements. Each form has its own set of fields that are collected when submitting a record).



Help - Clicking on this icon in the top button bar will display the User Help Guide in a second browser window. Clicking on this link in the Status bar will display the context-sensitive Help section in a second browser window.

More information: <u>User's Help Guide Table of Contents</u>



History Page - The page where a query can be run to search for information in the audit trail of the records.

More information: Record History



Home Page - The first page a user sees when logging into a workgroup. It can be configured to display up to 3 reports and includes links to <u>update your account information</u> and <u>set your preferences</u>.

More information: Logging In

Knowledge Base - This separately purchased option allows your end users to search for information to resolve questions and issues without logging into Tracker.

More information: Knowledge Base

Login to a workgroup - The operation used to access a workgroup.

More information: Logging In



Logoff - Clicking on this icon in the toolbar will end your Tracker session.



Metrics - The page where you can generate graphical reports such as bar, line or pie charts. More information: Metrics

Obsolete Item - A value in a pulldown field that has been marked as inactive. Option menu items can be marked as obsolete to allow the item to be preserved in existing records, but an obsolete item cannot be selected when adding new records or modifying existing records.

More information: **Querying Records**

Option Menu Item - Values in a pulldown field

Parent Pulldown - A pulldown that has one or more child pulldowns associated with it. When an option menu item is selected in the parent pulldown, it limits the option menu items available in the child pulldown to only

those values associated with the item selected in the parent pulldown.

Preferences - A link on the Home Page where you can set user preferences such as <u>selecting the reports</u> displayed on the Home Page, <u>choosing your local time zone and other date settings</u> among others.

More information: Preferences

Print - The Print link can be used to print the report(s) displayed on the History, Home, Query or Metrics pages.

Query Page - The page where reports can be generated (including the reports available on the <u>Home Page</u>). You can run <u>ad-hoc queries</u>, <u>saved queries</u>, <u>advanced saved queries</u> and configure <u>report layouts</u>.

More information: Querying Records

Project - A plan or design. A project can be a collection of records or actions that need to be completed by a particular group of people. Projects can be defined by your Tracker Administrator to use certain forms, workflows, state managers and be visible to particular user groups.

Record Visibility - A feature that allows you to select which user groups can access the record you are adding or editing via the Make Visible to These User Groups field if you have the appropriate user group privilege. More information: Adding Records, Editing Records

Self Registration - This feature allows users to create their own user account.

More information: Self Registration

Source Code Control - Tracker can be integrated with Microsoft Visual SourceSafe to associate relevant source files to a record.

More information: Source Code Control

State - Each item in the Status field, a state represents a step in the workflow process.

State Group - Workflow states that share a common characteristic. For example, a state group called "Active" could include all states where a record is actively being processed; the group excludes states such as "Closed" or "On Hold" or "Deferred". You may see state groups listed in the Status field on the Query and Metrics pages for the purpose of simplifying report criteria (e.g. return all records in "Active" states)

State Manager - A user assigned to a certain state in the workflow for the combination of project and form selected in the record.

Submit via Email - This feature allows users to send an email message as a means of submitting a record to Tracker. See your Tracker Administrator for details.

Submit via Web for Unregistered Users - Also known as the Submit Page, this separately purchased option allows unregistered users to submit records via a web form. See your Tracker Administrator for details.

Task - The operation that can be used to process a record. The Task operation prompts you with transitions available for processing a record based on the record's current state, prompts you with the fields that correspond to each transition and routes the record automatically based on the workflow settings. More information: Marking a Task Complete

Transition - A path used to move records from one state to another in the workflow, transitions are presented as choices when you use the Task operation to process a record.

More information: Marking a Task Complete.

More information: Marking a Task Complete

View Page - The page where a record's fields, attachments, <u>clone info</u>, <u>alerts</u>, <u>source code list</u>, <u>discussion threads</u> and <u>record history</u> can be viewed.

More information: Viewing Records

Workflow - The set of steps that represents your organization's process.

Workgroup - Created in the Workgroup Management System (WMS), a workgroup is an area with its own database and web pages. When a workgroup is created, you can select many parameters including what database type is used (Access, SQL Server or Oracle), what languages it supports (via the character set option) and where the web pages should be located. Each workgroup is intended to be an area independent of other workgroups (e.g. a workgroup has its own database and features can be enabled / disabled within each workgroup).

Workgroup Management System (WMS) - The interface for creating and maintaining workgroups. An unlimited number of workgroups can be created in WMS.



To begin using Tracker, you must have a user account. This user account may have been created for you by your Tracker Administrator. The Administrator will provide you with the User ID and password to use when you login to Tracker. If you have a User ID and password, proceed to the next section for a Tutorial to walk you through the basics. If you don't have a User ID and password, proceed to the Self Registration section below.

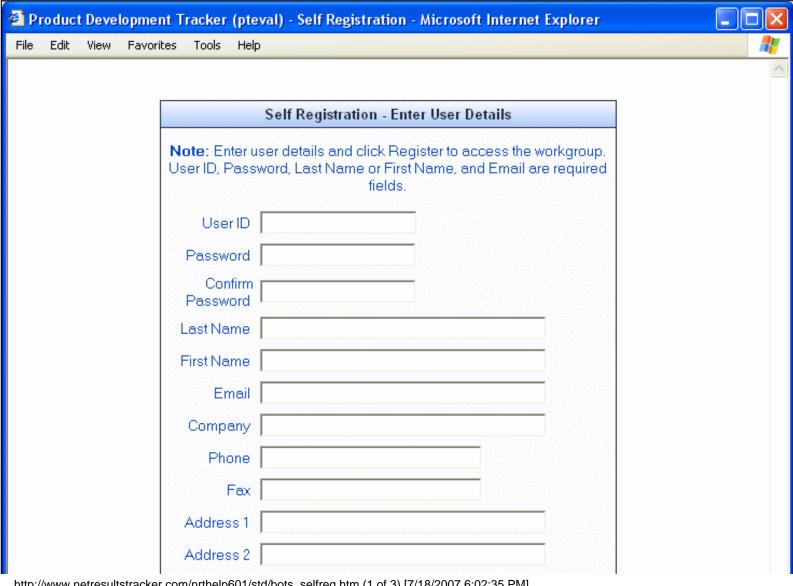
Self Registration

If the Self Registration feature has been enabled by your Tracker Administrator, you can create your own user account. To do this, browse to the Login Page by going to:

http://servername/workgroup/ptlogin.asp

where servername is the TCP/IP name of the host where the Tracker server software is installed, and workgroup is the name of the Tracker workgroup (e.g. pteval) you wish to access. If you are not sure where Tracker was installed on your network, please ask your Tracker Administrator.

If Self Registration is available, you will see New User? Register Here below the Login button. Click on the link Register Here to reach the Self Registration form. An example of the form is displayed below.



Enter the details for your user account:

User ID

Unique identifier for your user account. May be up to 40 characters long.

Password

Login password for your account. May be up to 10 characters long.

Confirm Password

Re-enter the password for your account to confirm what you entered above. May be up to 10 characters long.

Last Name

Your last name.

First Name

Your first name.

• Email

Your email address, which is used by Tracker to send you email notification messages.

Company

Your company name

• Phone

Your phone number

Fax

Your fax number

Address 1

The first line of your address

Address 2

The second line of your address

City

Your city

• State / Province

Your state or province

• Zip / Pincode

Your zip code or pincode

Country

Your country

Comment

Any other information you wish to include in your account profile

After entering the information, click on the **Register** button to save your new user account. A confirmation will be displayed after the user is successfully added. Click on the **OK** button to return to the Login Page to login and begin using Tracker.



The goal of this chapter is to walk you through the basic operations using Tracker. This tutorial assumes that the product has been installed, and you are using the default database that was installed. If your Tracker Administrator has customized your installation of Tracker, you may find that there are differences between the procedures described here and what you are working with. In this case, use this tutorial as more of a guideline to using the system.

In this tutorial you will:

- Start Tracker using your browser
- Add a record to the database
- Query for the record
- Assign and Schedule a record
- Mark the task complete
- Logoff from the system

Starting Tracker 1



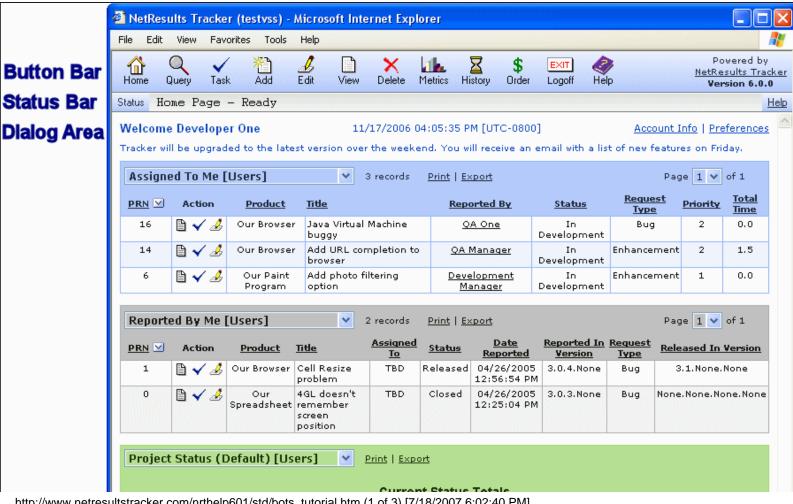
To use Tracker, start your web browser and go to the following URL:

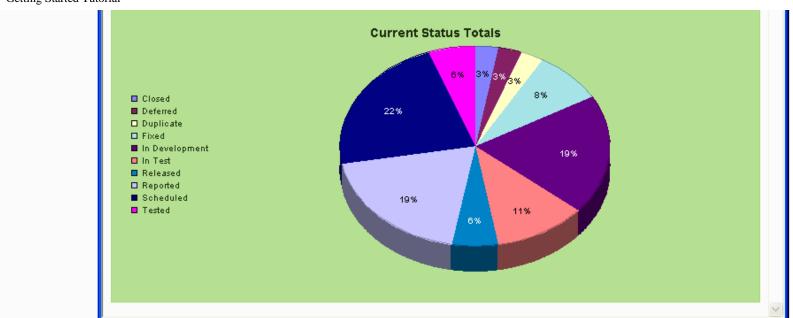
http://servername/workgroup/ptlogin.asp

where **servername** is the TCP/IP name of the host where the Tracker server software is installed, and **workgroup** is the name of the Tracker workgroup (e.g. "pteval") you wish to access. If you are not sure where Tracker was installed on your network, please ask your Tracker Administrator.

You are presented with the login screen. Enter your User ID and password to log in. If you are using the sample database, enter the User ID "dev_mgr" and a password of "dev_mgr".

After logging in, the first screen you will see is your Tracker homepage, which is typical of all the Tracker pages. Please spend a moment to become familiar with it:





Note the icons in the Button Bar. Depending upon how your Tracker Administrator has set up your account, you may see fewer or perhaps more buttons. Each button allows you access to a basic Tracker operation. If you are using the sample database, you should have access to all but the Administrative functions.

On any Tracker page, this Context Sensitive Help icon will be present in the upper right corner. Click on this icon at any time to get detailed information from the Help Guide about the page displayed.

Add A Problem Record 🔠



The first thing you will do is report a bug. To do this press the Add icon located in the button bar. You are presented with a page where you can enter information about the problem you would like to report. In the Product field, select the a product (if you are using the sample database, just select "None"), enter the string "My first record" in the Description field and click on the Add button to save the new record. The new record is added to the Tracker database. Note that Tracker is now ready to add another record, the Status Bar shows you the record number of the last added record. Make a note of this record number as you will need it later.

Query for Problem Records



Now that we have a record in the database, let's try doing a query to find that record. To do this, press the Query icon located in the button bar. You are presented with a page where you can define a query. In this case, we want to find all problem records for the product "None". Just select "None" from the Product pulldown, and click on the Run Query button. Note that since all the other fields are using the value "*", any value in these fields will match our query.

The page that appears displays the results of the query. Note that in each row displayed, there are three icon buttons (View, Task, Edit). These icons allow you to perform an operation on the record. Press the View icon. The contents of the record you defined are displayed. Press the OK button to return to the guery result page. The Edit. Task, and View icons in the button bar also allow you to perform an operation on a record, however, you must enter the record number to do so.

Now try pressing the button labeled Format For Printing. This causes the same query result page to be reformatted to take up less space (the buttons are removed and a smaller font is used). This format is often more convenient for printing reports. Press the button labeled Format For Editing to return to the previous query result page.

Now let's refine the query. Press the OK button on the query result page - you should return to the query page. Now enter the string "My first record" in the Description field and press the Run Query button. This time only those records that contain the specified string are matched in the result.

Assign and Schedule a Record 🍜



Once a problem record is entered into Tracker, it can be tracked as moves through an organization's process. For the purpose of this tutorial we will use the development process supported by the sample database. When first entered, the state of the record is set to "Reported", meaning that someone needs to review the record and make a decision about how to process it. At some point, a decision is made to fix the problem and the state of the record is set to "Scheduled". Once scheduled, the record is advanced to the state called "In Development" and the problem is assigned to an individual to handle.

To give you a feel for how this all works, let's change the state of the record to "In Development" and assign it to you. Press the Edit icon in the Button Bar and enter the record number you wish to modify, in this case the record that you added earlier.

The Edit page should be displayed. Set the Status field to "In Development", and the Assigned to field to yourself. Then click on the the Update Fields (OK) button.

To verify that you are the assignee, press the Home icon in the Button Bar. You should now have at least one record assigned to you listed on your home page. You can also verify your changes by clicking on the View icon in the Button Bar and entering the record number.

Mark A Task Complete



Once an individual has fixed a problem, they should indicate that this is the case in Tracker. To do this, click on the Home icon on the Button Bar and locate the task (record) you wish to complete. If you don't see it on your home page (it only displays 20 records), use the Query icon to locate the desired record. Once you have identified record, press the Task icon (a blue check mark) that is either located on your Home page, on the Query result page, or on the Button Bar (you must enter the record number if you use the Task icon on the Button Bar).

The Task icon presents a form that allows you to enter any information appropriate to the task you have completed, and automatically advances the record state to the next state in the process. It also automatically resets the assignment as defined by your Tracker administrator, indicating that it is ready to handled by another individual for the next step of the process.

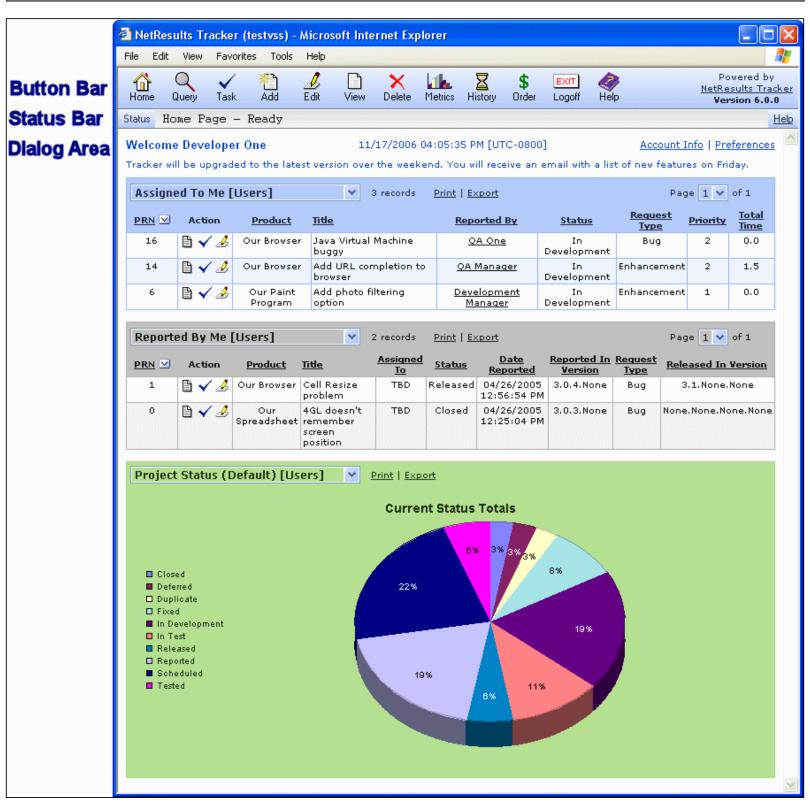
Select the transition called Mark Fixed and click OK. Enter a description of the fix, and then press the OK button. A confirmation page will be displayed and will note to what state the record was moved and to what user the record was assigned. Note that depending upon your original query, the record may or may not appear in the query summary because the state and assignee fields have changed.

Logoff the System Logoff

When you are done using Tracker, you should log off the system. Logging off is a good practice as it prevents other users from mistakenly accessing Tracker from your computer and performing actions under your user account.

To logoff, press the **Logoff** icon in the Button Bar.





The Tracker user interface has the following main components as shown in the illustration above:

1. Button Bar

This bar contains buttons that allow direct access to Tracker's primary functions. For those operations that require a record, a dialog appears prompting you to enter a record number. By default this dialog will contain the record number of the last record on which an operation was performed. This bar also contains the Version of Tracker being used.

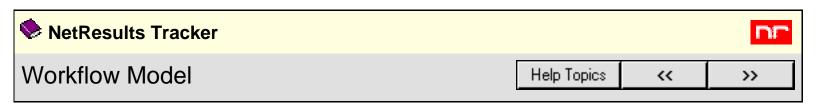
2. Status Bar

The Tracker User Interface

This area reports the status of the last operation. The Status Bar will remain at the top of the page as you scroll to view the contents of the Dialog Area. If a long message is contained in the Status Bar, click on Status Bar and move the cursor to the right to see the full content of the message. Clicking on the Help link on the right end of the Status Bar provides the help contents for the current page. Depending on the permission given to the login user, the Help link may or may not be available.

3. Dialog Area

This is the primary data entry and reporting area of Tracker. In most cases action buttons that appear in this area are placed at both the top and the bottom of the form to allow easier access.



Tracker helps you to track the progress of a record through a series of steps within your organization. The order in which a record can move between these steps is called the *workflow*.

At each step in the workflow, some work is done by an individual to complete the step, and then the record is advanced to the next step. This process is repeated until all of the steps are completed. For instance, in a typical product development organization, the follow series of steps might take place once a problem is reported...

- 1. Customer reports a problem
- 2. Customer Support engineer verifies the problem and creates a record in the defect tracking system.
- 3. Development Manager assigns the problem to a developer to fix.
- 4. Developer fixes the problem
- 5. Quality Assurance Manager assigns the problem to a QA engineer to verify the fix.
- 6. QA engineer verifies the fix
- 7. Fix is incorporated in the product

Issues to consider when designing a workflow include identifying the steps in the process, the key individuals in the process, the events that the key individuals should be notified about, the data that is required at each step in the process, and who should handle each step.

Tracker Workflow Customization

Tracker supports full customization of workflow for any number of individual process states. This customization includes state names, transitions, assignments, and email notification.

Tracker Automatic State Advance

To aid in the process of advancing the state of a record in the process flow, Tracker includes the Task feature. This feature allows the currently assigned individual to indicate that he/she has completed the task assigned to him/her and enter the information appropriate to completing the work. Tracker then automatically advances the record to the next appropriate state, and changes the assignment to the next appropriate individual (as defined by the Tracker Administrator).

With the Task feature, it is only necessary for each individual to log into the system, identify the task (record) that they have completed, and use the Task operation. They are prompted for all the information required and the record is sent on to the next individual automatically. All users follow the defined process without needing to know the process as a whole.



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Tracker keeps a history of all operations which modify a record. This history allows you to keep an audit trail of which individuals worked on a particular record, when they worked on it, and what type of operation was done to modify the record.

To **view** the Record History for a particular record:

- 1. Login to the workgroup
- 2. Click on the **View** icon and enter the number of the record you wish to see.
- 3. If you are allowed to view the history, it will be displayed at the bottom of the view page under the heading Record History.

Record History							
Date	Action	Ву	Status	Assigned To	Product	Interface	Comment
04/26/2005 01:12:27 PM	ADD	QA One	Reported	Process Manager	Our Browser	WEB	
04/26/2005 01:12:52 PM	ATTACH_ADD	QA One	Reported	Process Manager	Our Browser	WEB	Added Attachment - Screen shot of error
04/26/2005 01:14:14 PM	THREAD_START	QA One	Reported	Process Manager	Our Browser	WEB	Thread Initiated - Applet Discussion
05/10/2005 04:20:41 PM	TASK	Process Manager	Scheduled	Development Manager	Our Browser	WEB	
05/10/2005 04:22:37 PM	TASK	Development Manager	In Development	Developer One	Our Browser	WEB	
06/08/2005 11:11:09 AM	CLONED_AS	Development Manager	In Development	Developer One	Our Browser	WEB	Cloned As 22

You can also run specific queries over the record history to obtain statistics, such as the number of records that underwent a particular state transition within a particular time period. To run a history query, use the **History** icon located in the Button Bar.

To run a Record History query:

- 1. Login to the workgroup
- 2. Click on the **History** icon.
- 3. Click on the **Clear** button (if you wish to remove the Search Criteria and Report Options selections from previous History operations). Then, select the criteria for your search using the <u>Search Criteria</u> and <u>Report Options</u> sections which are described below.
- 4. Click on the Run Query button.
- 5. The results will be displayed. When the preference Exclude Time From Reports is enabled, any date information in the history results will not include time information. To view a record which is referenced in the results, click on the record number listed in the PRN (Record Number) column. This will display the View page of the record you selected. Clicking on any underlined column heading will re-sort the results by the field in that column in ascending order. Clicking on the same column heading a second time will re-sort the results by the field in that column in descending order. Please note when the preference Exclude Time From Reports is enabled, the history results will still be sorted using the time information in date fields even though the time information is not displayed.

The results of a History query can be printed by clicking on the **Print** link on the page where the History Query results are displayed. If there are a large number of entries that match your search criteria, it may take longer to generate the results for printing. When the preference <u>Exclude Time From Reports</u> is enabled, time information will not be included (only the date) when printing the history results.

The results of a History query can be exported to a *.CSV file (comma separated values format) by clicking on the **Export** link on the page where the History Query results are displayed. When the preference <u>Exclude Time From Reports</u> is enabled, time information will not be included (only the date) when exporting the history results.

Search Criteria

Query History Records	
	Run Query Clear Reset
Search Criteria	
Project	Product Development 🕶
Form	Issue 🕶
Action Date	on or after and before
Action	EDIT
Action By	Build Manager
Interface	*
Comment	
PRN	* •
Status	Reported before action and Scheduled after action
Assigned To	before action and * after action
Product	* before action and * v after action
Report Options	
History Columns	Action Date Action Action By Interface Comment Status Before Status After Assigned To Before
Record Columns	Home Report1 [Users] (Report Layout)
	Action Date Ascending
Sort By	Action Ascending V
	Action By Ascending Ascending
	PRN Ascending
Maximum Records	20 per page
	Run Query Clear Reset

When running a History Query, the following options are available for defining search criteria:

Action Date

The results can be limited to actions performed within a certain date range. Use the "On or After" field with or without the "AND Before" field to specify the date range for the entries you wish to include in the results. Leaving the fields blank will match entries with any action date.

You can either click on the calendar icon to select a date or you can manually enter a date in the appropriate format (e.g. "mm/dd/yyyy HH:MM:SS AM/PM" or the date & time format selected in the Preferences section.). The time component is optional. Click on the day to select the date to be entered into the date field. Click < or > to move backward or forward one year. Click Now to set the date field to be the current date and time. Click on Exclude Time if you want to exclude the time information from being saved in the date field. For a field where the time information has previously been excluded, click Set Time if you wish to include the current time information in the field. Click OK to choose the highlighted date to be entered into the date field. Date will be selected and calendar dismissed when a date is clicked when the time is excluded. Dates displayed in red are non-business days according to the Business Days option in the Preferences section. Click Cancel to dismiss the calendar without saving changes.



Action

Use the Action field to limit the results of the history query based on the activity that generated the entry in the record history. Selecting * will match entries for any action. The following table lists the actions documented by the record history with a description:

Action	Description
ADD	The record was added to the database
ATTACH_ADD	An attachment file was added to the record
ATTACH_DELETE	An attachment file on this record was deleted
ATTACH_EDIT	An attachment file on this record was edited
CLONED_AS	Another record was cloned from this record
CLONED_FROM	This record was cloned from another record
DELETE	The record was marked as deleted
EDIT	The record was modified while using the Edit operation
SCC_ADD	A source code file was added to this record
SCC_DELETE	A source code file on this record was deleted
SCC_EDIT	A source code file on this record was edited
TASK	The record was modified while using the Task operation
THREAD_DELETE	A discussion thread was deleted
THREAD_START	A discussion thread was started
UNKNOWN	An unknown operation was performed on this record

Action By

The history query results can be limited to actions performed by a particular user. Selecting * will match entries for any user.

Interface

Select an interface to limit the results to only actions performed via a particular interface. Select "WEB" to include only actions performed by users logged into Tracker or via users submitting records using the Submit page. Select "IMPORT" to include only actions performed via the Import feature. Select "EMAIL" to include only actions performed through the Submit via Email feature. Select "API" to include only actions performed using the Tracker Software Development Kit (SDK). Selecting * will match entries for any interface.

Comment

Enter a key word(s) to limit the results to actions that contained this key word(s) in the history comment field. Leaving the Comment field blank will match any entry irrespective of Comment.

PRN

Also known as Record Number. You can search for the history entries for a particular record by selecting = and entering the Record Number. Or, you can search for the history entries for a range of records lower or higher than a certain record number using the <, <= > and >= options. Selecting * will match any entries for any record number.

Status

Whether a status was changed or unchanged or changed to or from specific values can be included as criteria for a search. Selecting "changed" will return all history entries where the status was changed. Selecting "unchanged" will return all history entries where the status was not changed. Selecting a state or state group for the pulldown " <State> before action" will return all history entries where the state of the record matched the state or state group selected in the pulldown prior to the action recorded by the history entry. For example, selecting "Reported before action and * after action" will return all history entries where the state of the record was Reported before the action and any state after the action recorded by the history entry (e.g. an action where a record was moved from the

Record History

Reported to Closed will be a match for this criteria). Selecting a state or state group for the pulldown "and <State> after action" will return all history entries where the state of the record matched the state or state group selected in the pulldown after the action recorded by the history entry. For example, selecting "* before action and In Development after action" will return all history entries where the state of the record was any state before the action and In Development after the action recorded by the history entry (e.g. an action where a record was moved from Scheduled to In Development will be a match for this criteria). Select the blank value in the 1st pulldown and * for the 2nd and 3rd pulldowns if you don't wish to limit the results by Status (results will match entries for any state).

Assigned To

Whether the assignee was changed or unchanged or changed to/from specific values can be included as criteria for a search. Selecting "changed" will return all history entries where the assignee was not changed. Selecting a user for the pulldown " <Assignee> before action" will return all history entries where the assignee of the record matched the user selected in the pulldown prior to the action recorded by the history entry. For example, selecting "QA Manager before action and * after action" will return all history entries where the assignee of the record was QA Manager before the action and any user after the action recorded by the history entry (e.g. an action where a record was assigned to the QA Manager prior to the action and assigned to Build Manager after the action will be a match for this criteria). Selecting a user for the pulldown "and <Assignee> after action" will return all history entries where the assignee of the record matched the user selected in the pulldown after the action recorded by the history entry. For example, selecting "* before action and Process Manager after action" will return all history entries where the assignee of the record was any user before the action and Process Manager after the action recorded by the history entry (e.g. an action where a record was assigned to Development Manager prior to the action and assigned to Process Manager after the action will be a match for this criteria). Select the blank value in the 1st pulldown and * for the 2nd and 3rd pulldowns if you don't wish to limit the results by the Assigned To field (results will match entries for any assignee).

Product

Whether the Product field was changed or unchanged or changed to/from specific values can be included as criteria for a search. Selecting "changed" will return all history entries where the Product field was not changed. Selecting a product for the pulldown " <Product> before action" will return all history entries where the Product field of the record matched the product selected in the pulldown prior to the action recorded by the history entry. For example, selecting "Product 1 before action and * after action" will return all history entries where the Product field of the record was Product 1 before the action and any product after the action recorded by the history entry (e.g. an action where a record had Product 1 selected prior to the action and Product 2 selected after the action will be a match for this criteria). Selecting a user for the pulldown "and <Product> after action" will return all history entries where the Product field of the record matched the product selected in the pulldown after the action recorded by the history entry. For example, selecting "* before action and Product 3 after action" will return all history entries where the Product field of the record was any product before the action and Product 3 after the action recorded by the history entry (e.g. an action where a record had Product 2 prior to the action and {Product 3 after the action will be a match for this criteria). Select the blank value in the 1st pulldown and * for the 2nd and 3rd pulldowns if you don't wish to limit the results by the Product field (results will match entries for any product).

Report Options

The following options are available to customize the content included in the report results:

History Columns

Select the data items from the Record History that you want to be included in the report results. Each item selected will be displayed as a column in the history report results. To select multiple items, hold down the CTRL button on your keyboard as you click on the history column items. "Status Before", "Assigned To Before" and "Product Before" will display the status, assignee or product of the record prior to the action recorded by the history entry. "Status After", "Assigned To After" and "Product After" will display the status, assignee or product of the record after the action recorded by the history entry. See Search Criteria section above for a description of the rest of the items in this option. When the preference Exclude Time From Reports is enabled and a date field is selected as a history column, the time information will not be included (only the date) in the history results.

Record Columns

Select a report layout to display field information from the records which are referenced in the history report results. All report layouts to which you have access will be available in the pulldown. Members of the Admin user group will have access to all group report layouts irrespective of whether they are members of other user groups. Selecting **<None>** will not display any fields from the records besides those selected in the **History Columns** option. **Note:** If you wish to include history entries for permanently deleted records in the History results, this can only be done when **<None>** is selected for the Record Columns field.

Sort By

Choose up to 4 fields by which the history report results should be sorted. For each field selected, choose whether the sorting should be ascending or descending. The fields that can be selected for sorting are Action Date, Action, Action By, Interface, PRN, Status Before, Status After, Assigned To Before, Assigned To After, Product Before, Product After. Or, select * if you do not wish to select specific fields for sorting. "Status Before", "Assigned To Before" and "Product Before" will sort the results by the status, assignee or product of the record prior to the action recorded by the history entry. "Status After", "Assigned To After" and "Product After" will sort the results by the status, assignee or product of the record after the action recorded by the history entry. See Search Criteria section above for a description of the rest of the fields. Please note when the preference Exclude Time From Reports is enabled, the history results will still be sorted using the time information in date fields even though the time information is not displayed. When PRN (Record ID) is selected for one of the Sort By fields, the records will be ordered according to the numeric component of the PRN (Record ID) field. The short name of the form will not be used as part of the sorting when PRN (Record ID) is selected. For example, let's say you have PRNs "REC1" and "REC2". The sorting will be done using "1" and "2", ignoring the "REC".

Maximum Records per Page

Set the maximum number of records (any number from 5 to 100) that should be displayed on each page of the history report results.



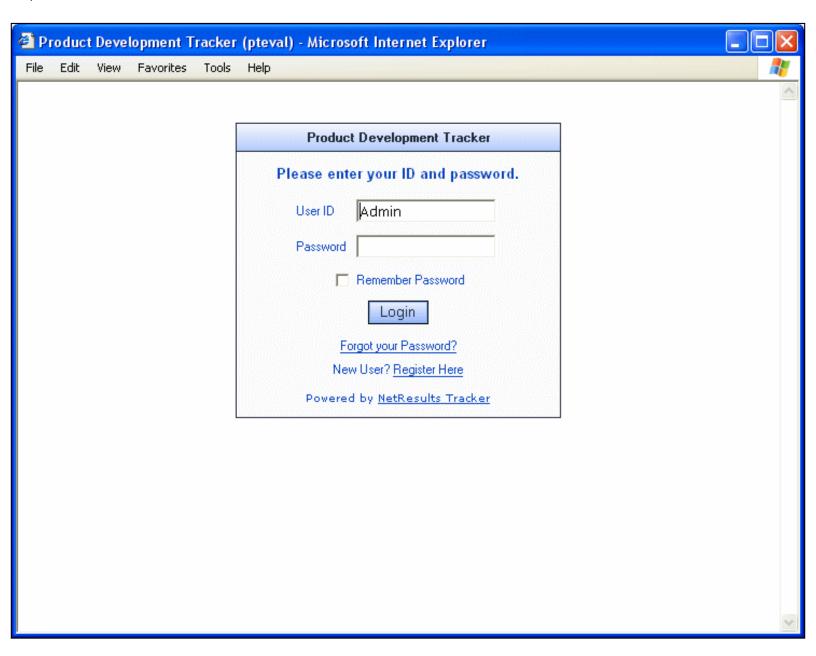
To use Tracker you must log into the system. Start your web browser and go to the following URL:

http://servername/workgroup/ptlogin.asp

where **servername** is the TCP/IP name of the host where the Tracker server software is installed, and **workgroup** is the name of the of the Tracker workgroup (e.g. "pteval") you wish to access. If you are not sure where Tracker was installed on your network, please ask your Tracker Administrator.

Depending on the configuration set up by your Tracker Administrator when you are using Internet Explorer, you may be prompted with a pop-up window to enter credentials to allow you to access Tracker. Enter the User Name and Password for your Windows user account.

The Login Page may be displayed when you browse to the link for Tracker. If so, enter your User ID and password to log in or, if available, click on the link **New User? Register Here**. Details on creating your own account by Self Registration can be found in the <u>User Accounts</u> Help section.



If you have forgotten your password and have previously set up a Security Question and Answer in the <u>Preferences</u> section, you can reset your password by clicking on the **Forgot Your Password?** link on the Tracker Login Page. Details for setting up a Security Question and Answer or resetting a forgotten password can be found in the <u>Reset Password</u> section of the Preferences page.

On occasion when logging in, you may encounter the error message, "Login Failed - Your previous login session is still active." This message can come up if you were previously logged in to Tracker, but did not click the Logoff icon to finish your session. Select **Yes** so that the previous session will be closed and a new session will begin and allow you to login. If you select **No**, you will not be able to login to Tracker.

If you are using floating licenses, it is important that you click the **Logoff** icon to end your Tracker session when you are done. Simply exiting your browser will not end your session and may prevent other users from being able to access Tracker. If you do forget to click the Logoff icon, simply login in again, answer **Yes** when asked to delete your old session, and then click the **Logoff** icon on the Home page when it is displayed.

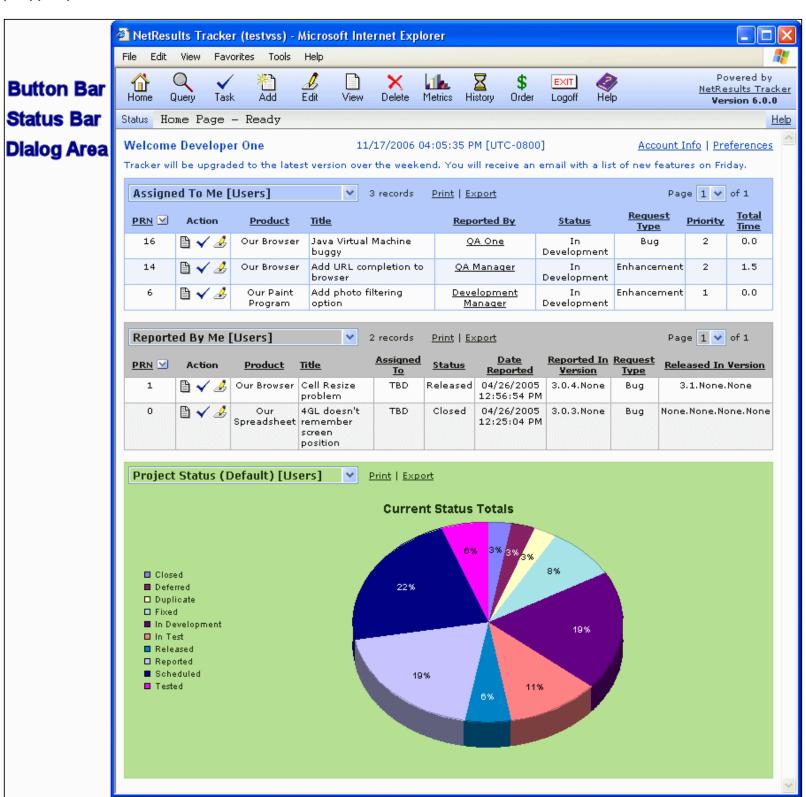
If you browse off to another site without clicking the Logoff icon to end your Tracker session, you can click the **Back** button on your browser several times to return to the last Tracker page you were on and then click the Logoff icon. Or, you can simply browse back to the login page, login again, then click the Logoff icon on the Home page when it is displayed. Tracker does not allow more than one active session per user account (irrespective of license type), so if you login and then logoff you can always be certain that you have not left any active sessions around.

If your user account is of the floating license type, you may encounter the error message, "Login Failed - The maximum number of concurrent logins has been reached. Please try again later or contact your administrator." This message is generated because the maximum number of floating license users are already logged into the system. As soon as another floating license user logs off (or is forced off by your administrator), you will be able to login to Tracker.

If it is important that you are always able to login, please ask your administrator to configure you as a static license user. Static license users have a single license permanently assigned to them.



After logging in, the first screen you will see is your Tracker Home Page. By default, this page has two reports, which display the records assigned to you and the records reported by you. Also present on the Home Page is a link to the personal preferences section, where you can customize various user settings, such as your changing your password and selecting date and report settings. A link to edit your account information may also be displayed depending on the privileges granted to you by your system administrator.



Report Layout

You can customize the columns of the reports displayed on your home page either by creating your own saved report layout or selecting an existing saved report layout. Please refer to the section <u>Using Saved Queries & Reports</u> for details.

Report Query

You can customize the query "Assigned To Me" with a query of your choice by defining your own personal saved or advanced query and selecting it for the First Home Page Report field in the Personal Preferences page. Alternatively, you can select an existing saved or advanced query for this first home page report as well. You can customize the query "Reported By Me" using the Second Home Page Report field in the Personal Preferences page. Information on selecting the queries for the Home Page reports via the Personal Preferences page is described in the section below. Please refer to the section <u>Using Saved Queries & Reports</u> for details on how to create your own saved query or refer to the section <u>Advanced Queries</u> for information on creating advanced queries.

Dynamic Report Selection

You can view different saved queries or charts on the Home page at any time by clicking on the pulldown menu above each report. Any saved query or chart to which you have access will be displayed in the pulldown for selection. To permanently change the reports displayed on the Home Page when you first log into Tracker, you will need to select the desired reports in the Preferences section.

Dynamic Sorting of the Results

The initial sort order of reports on the Home Page is based on the selections made in the **Sort By** options in the saved query. You can change the way the reports on the Home page are sorted at any time by clicking on the field name. The field that is being used as the primary sort field will have an arrow to the right of the field name. If the arrow is pointing down, the results are sorted by that field in a descending order. If the arrow is pointing up, the results are sorted by that field in an ascending order. Clicking once on the field with the arrow will reverse the sort order. Clicking once on any field that does not have the arrow will sort the results in ascending order by that field. Any field except TextArea type fields can be clicked to sort the results by that field. Please note that when the preference Exclude Time From Reports is enabled and a Date field is selected in the Sort By section of the saved query, the report results will be sorted by the time in each record even though the report will not display the time information. When PRN (Record ID) is selected for one of the Sort By fields, the records will be ordered according to the numeric component of the PRN (Record ID) field. The short name of the form will not be used as part of the sorting when PRN (Record ID) is selected. For example, let's say you have PRNs "REC1" and "REC2". The sorting will be done using "1" and "2", ignoring the "REC".

Other Features of the Home Page

When the Assigned To or Reported By fields are displayed as columns on a Home Page report, the user's name will appear as a clickable link if you have the appropriate privilege. Click on the user's name to display the user's profile information as shown below.



There is one **Export** link for each report displayed on the Home Page. The records displayed in each of the Home Page reports can be exported to a CSV file (comma separated values format) by clicking on the Export link to the right of the Report Pulldown at the top of the report. You can then open this file with another tool such as Microsoft Excel or Crystal Reports. Please note that when the preference <u>Exclude Time From Reports</u> is enabled and a Date field is displayed in the report layout, the time information will not be included (only the date) when exporting the Home Page reports.

If you have exported Metric (chart) data, you can create a chart in Microsoft Excel from the exported data by doing the following. Open the file in Excel and "rubber band" (left-click mouse and drag a rectangle around) the data plus column and row titles (exclude rows 1 through 3, but include the individual row/column titles in row 4 and column A along with the data in your selection) and click the Chart Wizard icon (or select Insert->Chart...). Click the Finish button in the Chart Wizard to accept the Microsoft Excel default settings for the chart; or make selections, click Next button, then click Finish to create a chart with custom settings. Please review the Microsoft Excel Help for further information on Excel charts.

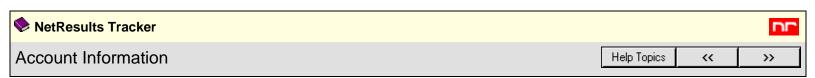
To print the results of a report or chart displayed on the Home Page, click on the **Print** link to the right of the Report Pulldown at the top of each Home Page Report. When a report is displayed on the Home Page, clicking on the Print link will print all of the records that match the Saved Query (including those records not shown on the Home Page when the number of records in the query results exceeds the maximum number of records displayed per page). Please note that when the preference **Exclude Time**From Reports is enabled and a Date field is displayed in the report layout, the time information will not be included (only the date) when printing the Home Page reports.

Home Page

User Privileges

When you log in, you are given access to data and operations as assigned by your Tracker administrator. These rights are assigned to you via User Groups. Each group defines a set of privileges, and you are assigned to groups. The total set of privileges you have is the sum of all of the rights for all of the User Groups in which you are a member.

Please contact your Tracker administrator if you wish to receive additional privileges.



If you have been granted access to edit your own user account information, a link labeled **Account Info** will be present in the upper right corner of the Home Page. Click on this link to edit your user account information.

The Edit User Account page allows you to update the contact information stored in Tracker including your email address, phone number, address, etc.

To update your account information, enter information in the fields displayed, then click OK to save your changes.

The contact information that you can update in the Edit User Account page includes:

New Password

To change your password, enter the password you wish to use in this field. This field may not be present depending on the authentication set up by your Tracker Administrator.

Confirm New Password

Re-enter the password you typed into the New Password field above. You must enter the same password into both of these fields in order to successfully change your password. This field may not be present depending on the authentication set up by your Tracker Administrator.

Company

The name of the company or organization you represent

Email

Your email address. This address will be used to send you email notification, alerts, or discussion messages about records in Tracker.

Phone

Your phone number

Fax

Your fax number

Address 1

The first line of your address

Address 2

The second line of your address

....

City Your city

State / Province

Your state

Zip / Pincode

Your zip code or pincode

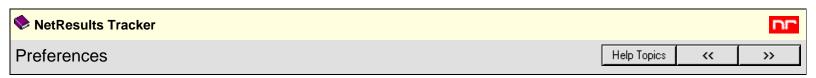
Country

Your country

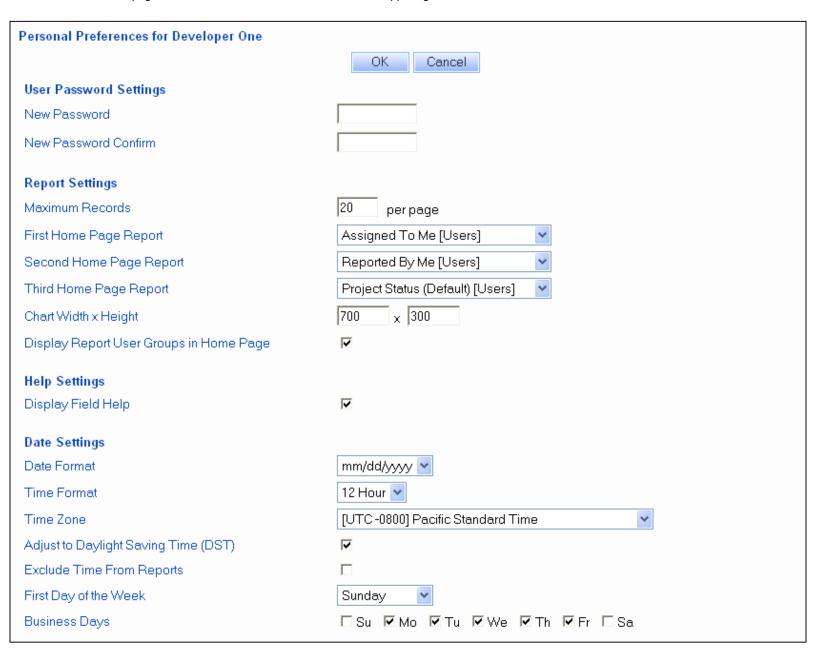
Comment

Any comment you wish to include in your user account information

Edit User Account		
	OK Cancel	
UserID	dev_one	
New Password		
Confirm New Password		
Last Name	One	
First Name	Developer	
Company	Our Company, Inc.	
Email	dev_one@n2r6.com	
Phone	650-555-1212	
Fax	650-555-1212	
Address 1	121 Software Way	
Address 2		
City	Our Town	
State / Province	CA	
Zip / Pincode	94302	
Country	USA	
Comment	Developer One	
	OK Cancel	



From the Tracker home page, click on the link labeled **Preferences** in the upper right corner.



You can customize the following features:

User Password Settings

New Password

To change your password, enter the password you wish to use in this field. This field may not be present depending on the authentication set up by your Tracker Administrator.

New Password Confirm

Re-enter the password you typed into the New Password field above. You must enter the same password into both of these fields in order to successfully change your password. This field may not be present depending on the authentication set up by your Tracker Administrator.

Report Settings

Maximum Records

You can select the maximum number of records that are displayed per page for reports on the Home and Query Pages. The upper limit for this

maximum value is 100 records.

First Home Page Report

You can select a saved query, advanced query, or saved chart to be displayed as the first report on your home page. If you do not want a first report displayed on your home page, select the option <No Report> for this field. If this option is selected for all 3 Home Page reports, the following message will be displayed on the Home Page: "No Home Page Reports are configured. If you would like a report to appear here, click the Preferences link above, select one or more Home Page Reports, and click OK."

Second Home Page Report

You can select a saved query, advanced query, or saved chart to be displayed as the second report on your home page. If you do not want a second report displayed on your home page, select the option "No Report" for this field.

• Third Home Page Report

You can select a saved query, advanced query, or saved chart to be displayed as the third report on your home page. If you do not want a third report displayed on your home page, select the option "No Report" for this field.

• Chart Width x Height

Enter the dimensions that should be used when a saved chart is selected for one of the Home Page reports. The setting that works best in most environments is 700 x 300. This preference is not available for Restricted Users.

• Display Report User Groups in Home Page

Checking the box for this option will display the user name in brackets after the report name for group saved reports in the pulldown for each Home Page report. For example, the "Assigned to Me" report will be displayed as "Assigned to Me [Users]" in the pulldown for each Home Page report when this option is enabled.

Help Settings

Display Field Help

Check the box to display the Field Help icon, a yellow question mark next to the name of the fields displayed on the Add, Task, and Edit pages. When the Field Help icon is displayed, you can move your cursor over this icon to get an explanation about the field.

Date Settings

Date Format

Select a format for the Date from the pulldown menu. The format that you choose will be used to display fields that contain date information within Tracker.

Time Format

Select a format for the time from the pulldown menu. The format that you choose will be used to display all fields that contain time information within Tracker. Choosing 12 hour for the time format will display times followed by AM or PM to denote the appropriate 12 hour period, such as 02:05:38 PM. Choosing 24 hour as the time format will display times without the AM or PM designation, such as 14:05:38.

• Time Zone

Select a time zone from the pulldown menu. The time zone that you choose will be used to display all fields that contain time information within Tracker. For a list of available time zones, please refer to the following section:

Windows 2003 / 2000 Time Zones

Adjust To Daylight Saving Time (DST)

Check this box if you wish to have Tracker adjust time information to account for daylight saving time. If you selected a time zone in which daylight saving time is observed, we recommend that you enable this option.

• Exclude Time From Reports

Check this box if you wish to have Tracker display date information in the reports on the History, Home and Query pages without the time information included. Enabling this preference will also exclude the time information from History, Home and Query reports when they are exported or printed. Enabling this preference does not change how report results are sorted when a date field is selected as one of the "Sort By" fields. When a date field is selected as one of the Sort By fields, the time information is still used for sorting the results even though the time information is not displayed in the report results.

First Day of the Week

Select the day of the week that you want to be displayed in the first column when using the calendar feature for date fields.

Business Days

Check the boxes to the left of the days of the week that should be considered business days when using the calendar feature for date fields.

Export Settings

The following preferences are used when report data is exported from the Tracker Home, Query, and Metrics pages. Data is exported as a CSV (comma separated values) file. However, because there is no firm definition of a CSV standard, you may need to modify some export parameters to allow use of the exported data by other applications (spreadsheet, database, etc.). Tracker and your Tracker Administrator have set these values to defaults that should work in most environments. So in most cases, you should not need to change these settings. If you have an application that is not importing the data correctly, review the information below. If that does not help, please contact your Tracker Administrator.

Field Separator

Choose one of the options to be used as the separator between the fields (values) of a report that is being exported. The available options are Comma, Semicolon, and Tab. If you are exporting English language (or Latin1) data in the United States, you should use Comma. If you are exporting English language (or Latin1) data in a country that uses a Comma in floating point numbers to separate the whole number from the fractional part (e.g. 45,125 for 45 and one eighth), you may need to set this to Semicolon. If your Tracker Administrator configured your system to use the Unicode (UTF-8) character set for multi-language support, Tab will generally work best in most applications.

Row Separator

Choose one of the options to be used as the separator between the rows (lines) of a report that is being exported. The options are Carriage Return &

Line Feed (Windows), Carriage Return (Mac OS), and Line Feed (Unix). Choose the appropriate option for the operating system you are using on your desktop (the one running the web browser you are using).

• File Extension

Choose one of the options to be used as the file extension when saving the file containing the exported data. The options are csv, txt, and No Extension. For English language (or Latin1) data, this should be set to csv. For Unicode (UTF-8, multi-language) data this should be set to txt. However, you can also choose No Extension if you wish to create a file without a file extension (without .csv or .txt at the end).

Note: When exporting data from a UTF-8 workgroup using the recommended settings listed above, misalignment of the data can occur when viewing the exported data in Excel if the file is not first saved to disk and then opened in one of the two ways listed below. Unfortunately, the default file open in Excel does not properly store multiple line text (as there may be in Tracker TextArea fields) in a single cell. Instead, it puts each line in its own cell which results in misalignment of the fields in the spreadsheet.

For UTF-8 data exported with Field Separator set to Tab, Row Separator set to Carriage Return & Line Feed, and File Extension set to txt, you can get Excel to properly place multiple line data in a single cell using one of the two operations below.

- 1. From Windows Explorer, select the file to be opened.
- 2. Right-click on the file and select Open With -> Microsoft Excel.

OR

- 1. From Excel, select File -> Open.
- 2. Locate and select the file that you want from the list (the file you created when you exported the data from Tracker).
- 3. Hold down the SHIFT key on your keyboard, and then click the Open button (if you do not hold down the SHIFT key, the file may not be processed correctly).

Query Page Pulldown Settings

• Enforce Dependencies

Check the box for this option if you wish to have dependent relationships between pulldown fields enforced when using Query operations. This option cannot be enabled if you have the option **Include Obsolete Items** enabled. This preference is not available for Restricted Users.

• Include Obsolete Items

Check the box for this option if you wish to have obsolete option menu items available in the pulldown fields to be selected as search criteria on the Query Page. Obsolete option menu items are values in a pulldown that have been deactivated, but remain in the workgroup for archive purposes. Existing records may contain obsolete values. You must check the box for this option if you wish to include obsolete values in the search criteria for reports. This option cannot be enabled if you have the option **Enforce Dependencies** enabled. This preference is not available for Restricted Users.

Multi-Line Field Settings

Display Window

Select the number of lines that should be displayed when editing (Edit or Task operation) or viewing (View operation) the text in a large text field. By default, this will be set to 5 lines. If the contents of a large field extend beyond the number of lines set in this preference, you will have the ability to scroll to see the complete contents of the field. On the View page if you are using Internet Explorer or Firefox as your browser, you will have the option to dynamically expand the window to see the complete contents without scrolling by clicking on the "+" icon to the left of the text. The "-" icon can be used to collapse the field to its default size. On the View page, empty (blank) fields are always displayed as a single line.

Visual SourceSafe Login Settings

SourceSafe Login Settings

Enter your Microsoft Visual Source Safe User ID and password to be able to use the Source Code Control Interface within Tracker. This preference is not available for Restricted Users.

Discussion Settings

Note: These options will not be displayed unless you are using Tracker Enterprise Edition. These preferences are not available for Restricted Users.

New Post Notification

This option determines when a user will be notified about discussions via email. Selecting "No Email" indicates that a user should not receive any email notification messages related to discussions. Selecting "Receive Email for each New Post" indicates that a user will receive one email notification for each new post in any discussion thread to which he/she is subscribed. Selecting "Receive Email for the first New Post to each Thread" indicates that the user will only receive email for the first post made to each discussion thread since the user last viewed the message list for the thread. With this setting the user can tell which threads have had postings since the last time they were read, but will not have a separate email for each posting (just one per thread with new posts). After viewing the message list for a thread, a notification email will be sent the next time a message is posted.

Invitation Notification by Email

This option determines whether a user should receive an email notification message when he / she has been invited to participate in a discussion thread initiated for a particular record. Selecting "Yes" indicates that the user should receive an email invitation for each new discussion thread.

Message Display Window

Enter the number of lines of text you wish to see when displaying a message within a discussion. The default setting is 5 lines of text.

Login Options

This option may not be available depending on the authentication option selected by your Tracker Administrator.

Auto Login

If your password is currently remembered by your browser, you can enable Auto Login. This feature automatically logs you in, bypassing the log in screen and taking you directly to your home page. To enable this feature, check the box labeled Auto Login. The Remember Password feature below must also be enabled in order to use the Auto Login feature. This option may not be available depending on the authentication option selected by your Tracker Administrator.

Remember Password

You can set whether your browser should remember your password by checking the box labeled Remember Password and entering the password in the box provided. When enabled, the password field is automatically filled in when you log in. This option may not be available depending on the authentication option selected by your Tracker Administrator.

Reset Password

These options will only be displayed if your Tracker Administrator has enabled this feature in the Login Options section. Set up a Security Question and Answer using the options below so you can reset your password in case it has been forgotten.

Security Question

Enter a question that will be used to allow you to reset your password in case you forget it. Examples of Security Questions are:

What is your mother's maiden name?

What is your favorite sports team?

What is your pet's name?

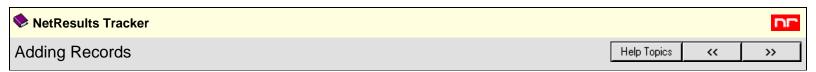
Answer

Enter the answer to the question you entered in the Security Question field above.

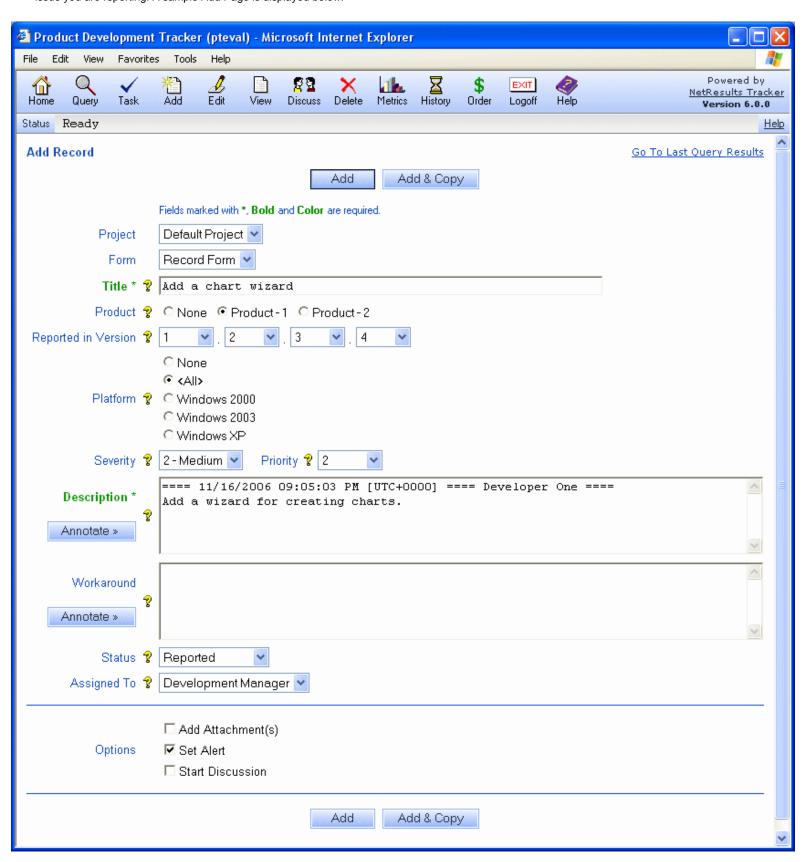
If you forget your password:

- 1. Browse to the Tracker Login Page
- 2. Click on the Forgot Your Password? link
- 3. Enter your User ID and click Continue
- 4. Answer the Security Question and click Continue
- 5. Enter and confirm a new password, then click on the Reset Password button
- 6. Click OK after the password has been reset
- 7. Login using the new password

Note: You need to have set up a Security Question and Answer prior to attempting to reset your password using the link on the Login Page.



To add a record, click on the **Add** icon located in the Button Bar. The Add form will appear in the Dialog Area, allowing you to enter information about the issue you are reporting. A sample Add Page is displayed below.



Tracker allows your administrator to customize the fields that appear on the Add Page. Certain fields may be required (you have to enter information or select

something other than the default value) when adding an issue. Depending on how your Tracker has configured the system, there may be some text at the top of the Add Page to explain which fields are required. For example, the following text or something similar can be displayed to identify required fields: "Fields marked with *, Bold and Color are required fields."

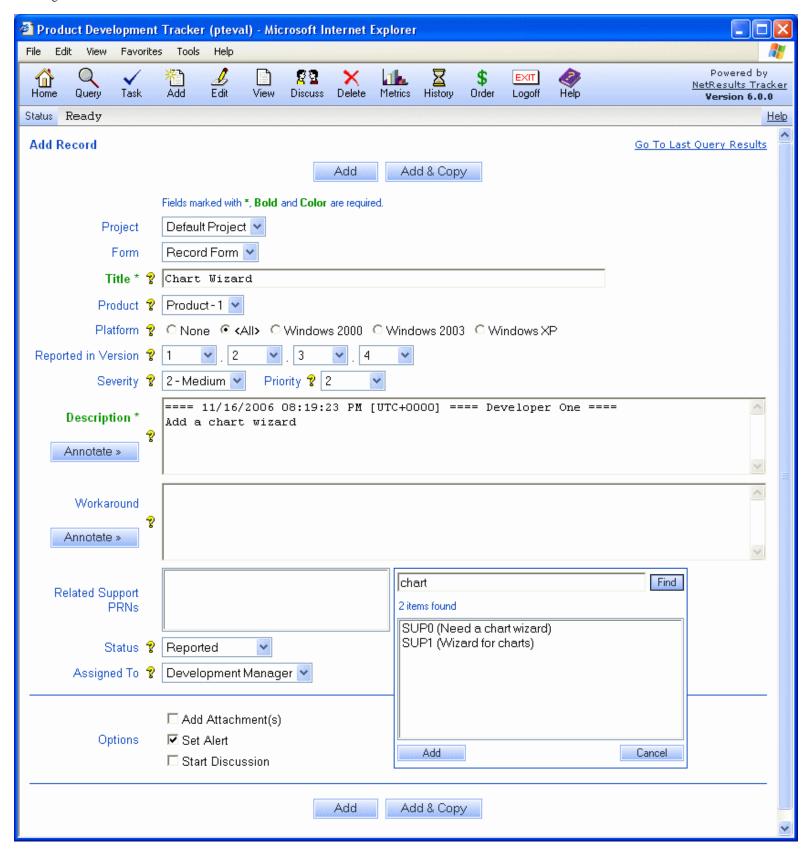
The field help icon will be displayed if you have checked the box for the "Enable Field Help" preference and your Tracker Administrator has entered information to describe this field. Move your cursor over this icon to see a description of the field.

Depending on how your Tracker Administrator has configured the system, fields called **Project** and **Form** may be displayed on the Add Page. If you have access to more than one project, make a selection in the Project field to reflect which project is related to the record you are adding. If you have access to more than one form, make a selection in the **Form** field to reflect the kind of record you are adding. The fields displayed on the Add Page may change depending on the form you have selected.

When a date field is present on the Add Page, you can click on the calendar icon to select a date or you can manually enter a date in the appropriate format (e.g. "mm/dd/yyyy HH:MM:SS AM/PM" or the date & time format selected in the Preferences section.). The time component is optional. Click on the day to select the date to be entered into the date field. Click < or > to move backward or forward one month or click << or > to move backward or forward one year. Click Now to set the date field to be the current date and time. Click on Exclude Time if you want to exclude the time information from being saved in the date field. For a field where the time information has previously been excluded, click Set Time if you wish to include the current time information in the field. Click OK to choose the highlighted date to be entered into the date field. Date will be selected and calendar dismissed when a date is clicked when the time is excluded. Dates displayed in red are non-business days according to the Business Days option in the Preferences section. Click Cancel to dismiss the calendar without saving changes.

<<	<		July 2007 >					>>
Su	1	Mo	Tu	We	Th	Fr	•	Sa
1		2	3	4	5	6		7
8		9	10	11	12	13		14
15		16	17	18	19	20		21
22		23	24	25	26	27		28
29		30	31	1	2	3		4
- 5		6	- 7	8	9	10		11
Set Time								
N	Now OK Cancel							

When a link field is present on the Add Page, you can add items by clicking on the **Add Items** button. A list of items that can be added will be displayed (if you are using a browser other than Internet Explorer, the list will not be displayed until you click on the **Find** button). To search for items using a key word(s), type the key word(s) into the Search Criteria field and click on the **Find** button. Any items that matched your key word(s) will be displayed. To select an item, click on the item. To select multiple items, hold down the **Ctrl** button on your keyboard while clicking on the items to be added. Click on the **Add** button to add the selected items to the link field.



As an example of a typical record, the Product Development template (a sample database) included with Tracker has the following fields:

- Title
 A brief description of the problem
- Product
 The product for which the problem is being reported. The values of this pulldown menu can be customized.
- Platform

Adding Records

The platform for which the problem is being reported. This is often used to indicate a hardware of software platform, such as Microsoft Windows 2000 or Microsoft Windows XP. The values of this pulldown menu can be customized.

· Reported In Version

Used to indicate the version number of the software where the problem was found.

Request Type

This is the nature of the request, generally either a bug, an enhancement, or a contractual obligation. The values of this pulldown menu can be customized.

Severity

Severity is a general indicator of how serious the problem is. The values of this pulldown menu can be customized.

Description

A description of the problem.

Workaround

A description of how a customer can work around this reported problem.

Status

The current status of the record. Initially this status is set to TBD.

Substatus

An indicator of how much progress has been made on the record in the current status

Assigned To

Name of the individual to whom this record is currently assigned for resolution. This value is chosen from a list of Tracker users.

The Difference between the Add Operation and the Add & Copy Operation

Depending on the configuration set by your Tracker Administrator, you may or may not see the "Add & Copy" button.

After entering the information for a new record on the Add page, you have the option to click "Add" or "Add & Copy" to save the new record. Clicking on the **Add** button will save the new record, then will return to a "blank" Add form so another new record can be added.

Clicking on the **Add & Copy** button will save the new record, but when returning to the Add form, the contents of some fields will be saved so that another similar record can be added without having to re-enter information into the fields. The fields which are copied to the Add form for the next record are selected by your Tracker Administrator.

Email Notifications

After clicking on the **Add** button or the **Add & Copy** button, if your Tracker workgroup is set up to send email notification messages when records are added, you will see a message "Sending Email Notifications...Please wait". This message indicates that the new record has been added to the system and Tracker is sending the email notification messages.

Relationship between the Product, Status, and Assigned To fields

When the Status and / or Assigned To fields are present on the Add page, the values of these fields are automatically selected based on what you have selected for the Product field (when the Product field is also displayed on the Add page). Even though the Status and / or Assigned To fields are set dynamically based on the selection made for the Product field, you can still choose other available values for these fields.

The option "State Manager" may be present in the Assigned To field. This indicates that the record you are adding will be assigned to a user based on what values you have selected in the Product and Status fields. Your Tracker Administrator configures these State Managers when setting up the workflow.

Dependent Pulldowns

In some cases, your Tracker Administrator may have set up dependent pulldowns. Dependent pulldowns allow the value selected for one pulldown (the parent pulldown) to determine the values displayed in another pulldown (the child pulldown). When dependent pulldowns appear on the Add page, the menu option selected in the parent pulldown will limit the menu options available in the child pulldown.

Specifying Record Visibility

If record visibility has been enabled, and you are a member of a user group that is allowed to modify the visibility of a record to user groups, a selection list called

Make Visible to These User Groups will appear at the bottom of the page. This list allows you to select which user groups can see this record in the various pages like View, Edit, and Query. To select more than one user group, hold down the shift or control key while clicking.

Multiple Projects and Forms

If your Tracker Administrator has given you access to more than one project and/or form, the fields displayed on the Add Page may change depending on the combination of Project and Form you select. If you do not see the Project or Form fields on the Add Page, this indicates that you only have access to a single project and/or form.

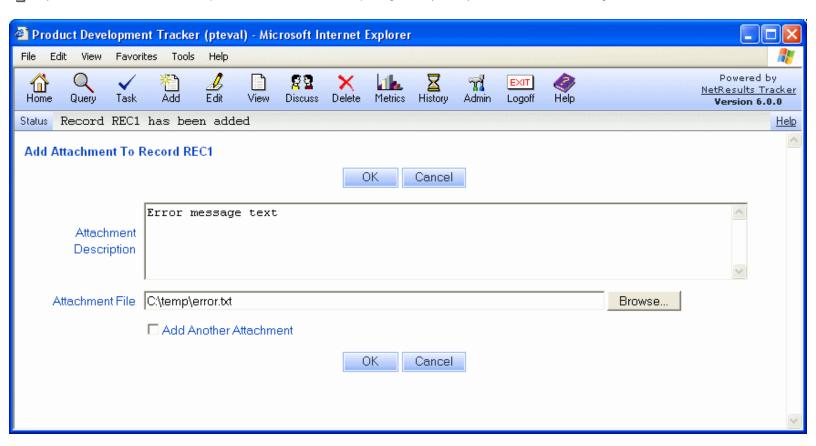
When you have access to more than one project and/or form, the Add Page will automatically display the combination of Project and Form you last used to add a record. For example, if you have access to projects A and B and forms 1 and 2 and you last selected Project A and Form 1 to submit a record, the next time you click on the Add icon, Project A and Form 1 will be selected by default.

Additional Options on the Add Page

Depending on the privileges you have been assigned, you may see additional options at the bottom of the Add page such as "Add Attachment", "Set Alert", and "Start Discussion" as shown in the Add Page sample. These options are discussed in detail below.

Adding an Attachment

🕼 If you are a member of a User Group that has the Add Attachment privilege, then you may add a file attachment along with the record.



To add a file attachment along with the record, please follow the steps below.

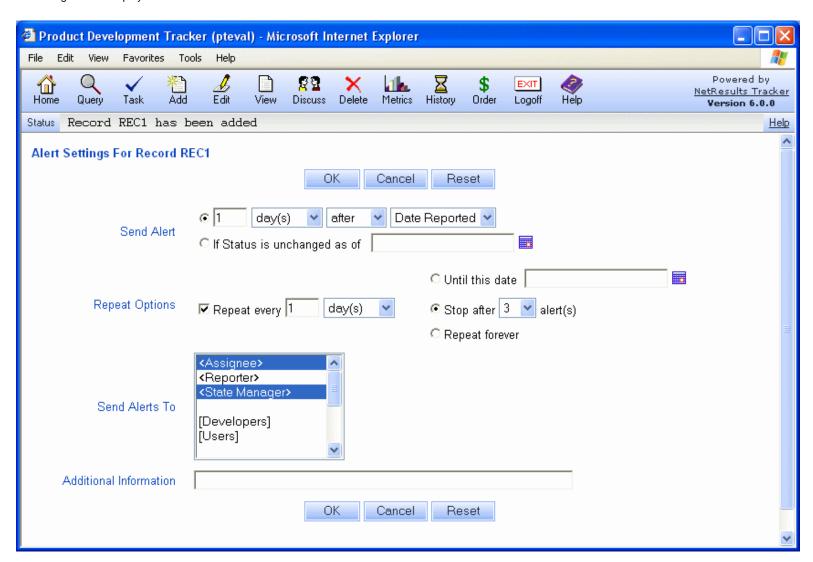
- 1. Check the Add Attachment box at the bottom of the Add page
- 2. Click on the Add or Add & Copy button to add the new record
- 3. Enter a meaningful description for the Attachment (this will be displayed when someone subsequently views the record) in the Attachment Description field.
- 4. Click the **Browse** button (to the right) to select the file from your local machine.
- 5. If you wish to add another attachment, check the **Add Another Attachment** box at the bottom. You will be prompted to enter the attachment description and browse to the file for the second attachment file. If you do not wish to add another attachment, simply click on the **OK** button to complete the operation.

After you have added a record (and if you have been given the appropriate privileges by your Administrator), you can add more attachments and/or edit or delete existing attachments by following the directions in the Record Attachments section of the Help.

Setting an Alert (Enterprise Edition Only)

Alerts are email notification messages that can be configured for a record. You can set an alert to remind you about a particular record at a later date and time. You can also set an alert to be sent to other users and groups in your organization.

Depending on the product you selected, you may have the option to set an alert for the record you are creating. If you are allowed to set an alert for the record, the box **Set Alert** will appear at the bottom of the Add form. Check the box if you wish to set an alert for the record. After clicking the **Add** or **Add & Copy** button, the Alert settings will be displayed as shown below.

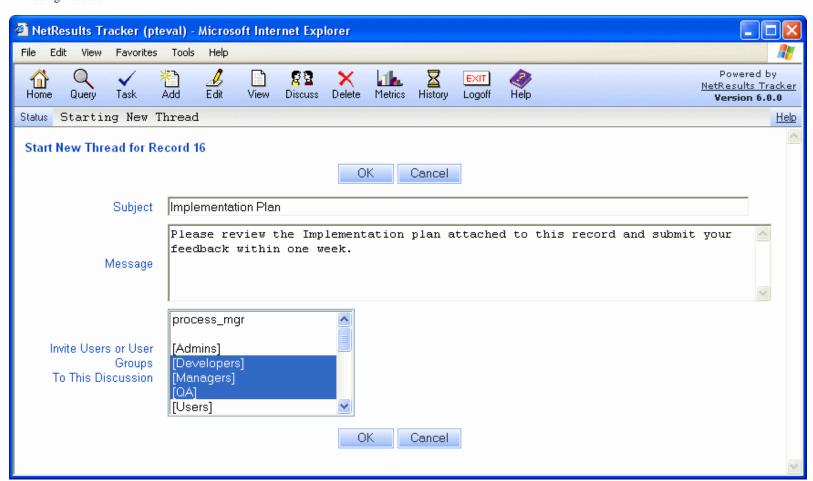


Details on configuring Alert settings during the Add operation can be found in the Alerts section.

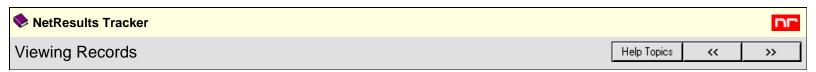
Start a Discussion (Enterprise Edition Only)

A discussion can be initiated for a record using the **Start Discussion** check box at the bottom of the Add page. The Discussion feature allows users to discuss topics related to a record in parallel to a record's progress through the workflow. When starting a discussion for a record, you can invite other users and groups to participate in the discussion.

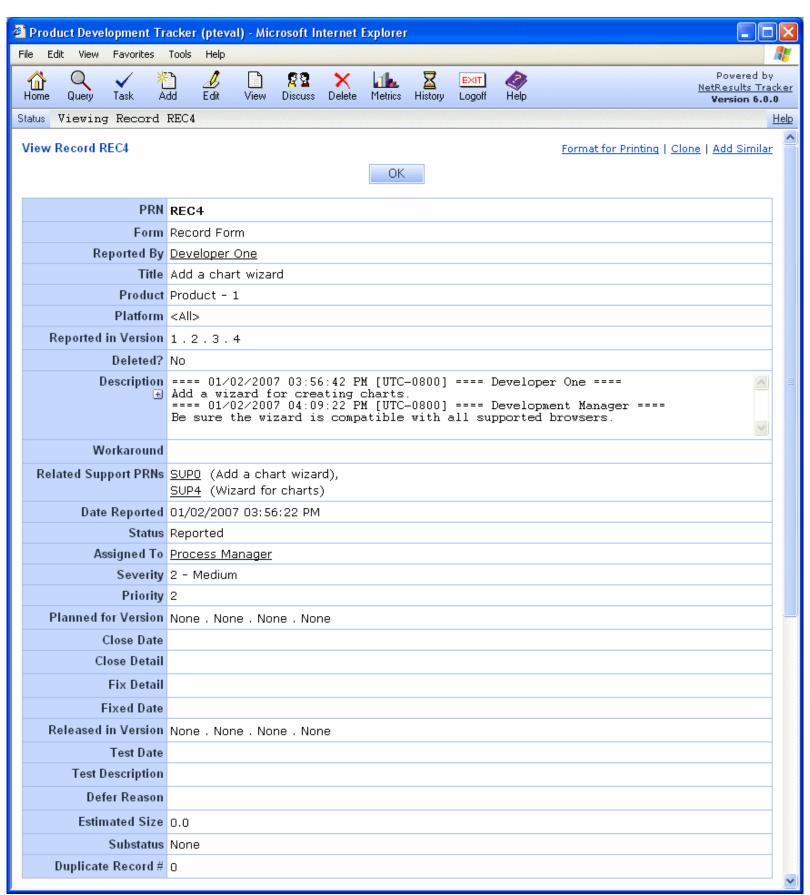
If you have the user group privileges required to initiate a discussion, check the box for **Start Discussion**. After clicking on the **Add** or **Add & Copy** button to save the new record, you will be prompted with the Discussion settings as shown below:



Details on starting a Discussion during the Add operation can be found in the <u>Discussion</u> section.



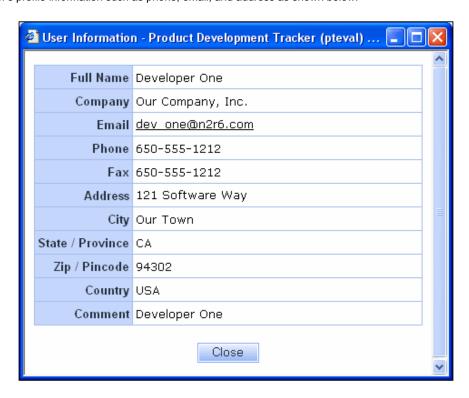
To view a record, you can either perform a query and press the **View** icon located in the Action column of the report next to the desired record, or you can press the View icon located in the Button bar and enter the record number you would like to see.





Viewing User Information

If you have been assigned permission to view user information and either the "Assigned To" or "Reported By" fields are displayed on the View page, you can click on the user's name to display the user's profile information such as phone, email, and address as shown below.



Expanding TextArea fields

To see the full contents of the TextArea fields, use the scroll bar to the right of the field. Click on the "+" to the left of the field to expand the TextArea field to see the full contents or click on the "-" to collapse the field back the default size. The "Description" field in the View Page sample has the "+" displayed to expand the field. To change the default number of lines displayed for a TextArea field, change the "Display Window" value in the Multi-line Field Settings section in your Preferences page.

Link Fields

Link fields are fields that allow records to be linked to one another. For example, if different types of forms are available in your Tracker workgroup, your Tracker Administrator may have set up Link field so records created by one form can be linked to records created using another form. When a Link field is included on the View Page, any records that have been linked will be displayed as a clickable link (e.g. "SUP0" and "SUP4" in the Related Support PRNs field in the View Page Sample are records that have been linked to the record being viewed). Clicking on one of the linked records will take you to the View Page of that record.

Source Code List

If you have been assigned permission to view the source code list, it will be displayed. Any source code file(s) associated with the record will be included on the source code list.

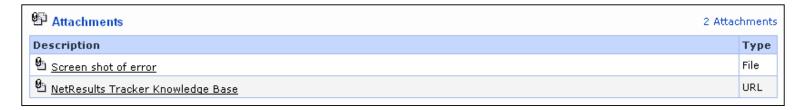


Each file on the source code list can be compared with other versions of the file. To compare the difference between two versions of a source code, click on the Differences icon to the left of the source code file name. Enter a version number for the **Problem Version**. If you wish to compare the oldest version of the file, leave the Problem Version field blank. Enter a version number for the **Fixed Version**. If you wish to compare with the latest version of the file, leave the Fixed Version field blank. Click **OK** to see the differences.

A history is kept for each file on the source code list. To view the history of a file between two versions, click on the **History** icon to the left of the source code file name. Enter a version number for the **Problem Version**. If you wish to see the history since the oldest version of the file, leave the Problem Version field blank. Enter a version number for the **Fixed Version**. If you wish to see the history through the latest version of the file, leave the Fixed Version field blank. Click **OK** to see the history. More information on this feature, can be found in the <u>Source Code Control</u> section of this Help Guide.

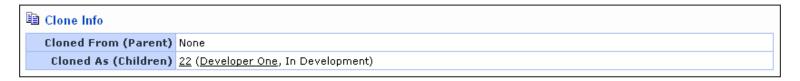
Record Attachments

To view a file attachment or go to the location of a URL attachment, click on the attachment description. More information can be found in the Record Attachments section.

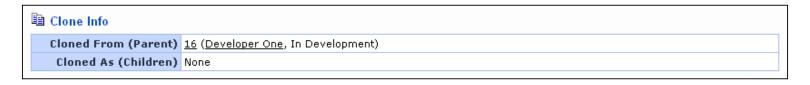


Clone Info

If you have been assigned permissions to view clone information, this section will display information about and links to the "parent" record (one that the record being viewed was copied from) as well as the "children" (copies created from the record being viewed) of this record, if any. The information about parent and/or child records includes the record number, current status, and current assignee (owner). Additionally, if the record you are viewing is a clone (has a parent record), a **parent** link will be displayed in each section (Attachments, Record History, etc.) to allow you to quickly view the equivalent information in the parent record. For example, clicking on the **parent** link in the Attachments section will bring you to the View page for the parent with the page scrolled down to the Attachments section. The example below shows the record being viewed was cloned. Record 22 is the clone and is currently assigned to Developer One and in the "In Development" state.

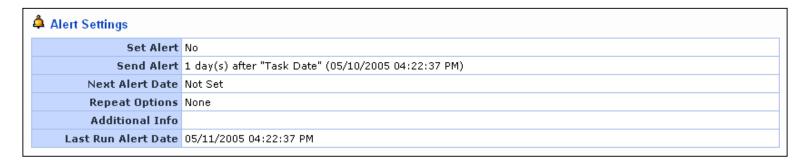


The example below shows the record being viewed is a clone. Record 16 is its parent and is currently assigned to Developer One and in the "In Development" state.



Alerts - Enterprise Edition Only

If Alert settings (available only in Tracker Enterprise Edition) have been configured for a record and you have been assigned permissions to view the alert settings, these will be displayed. Examples of the information shown in the alert settings section are whether alerts are set for the record, the date and time an alert will be sent, and whether the alert will be repeated. The Alerts section of this guide provides more details about using this feature.



Discussion - Enterprise Edition Only

If a Discussion(s) (available only in Tracker Enterprise Edition) has been initiated for a record and you have been assigned permissions to view discussion messages, this will be displayed. The following discussion thread Information is displayed: the name of each thread, status (whether a thread has had new Discuss messages posted since you last viewed the thread), user who initiated the thread, number of messages, date and time of last update, and whether you are subscribed to the thread. The <u>Discussion</u> section of this guide provides more details about using this feature.

Thread Status Started By Messages Last Update Subscribe	Discussion Threads					1 Threads
	Thread	Status	Started By	Messages	Last Update	Subscribe
<u>Applet Discussion</u> UPDATED QA One 3 05/10/2005 04:08:09 PM No	Applet Discussion	UPDATED	QA One	3	05/10/2005 04:08:09 PM	No

Record History



If you have been assigned permission to view the record history, it will also be displayed. More information about the information displayed in this section can be found in the Record History section.

☑ Record History							
Date	Action	Ву	Status	Assigned To	Product	Interface	Comment
04/26/2005 01:12:27 PM	ADD	QA One	Reported	Process Manager	Our Browser	WEB	
04/26/2005 01:12:52 PM	ATTACH_ADD	QA One	Reported	Process Manager	Our Browser	WEB	Added Attachment - Screen shot of error
04/26/2005 01:14:14 PM	THREAD_START	QA One	Reported	Process Manager	Our Browser	WEB	Thread Initiated - Applet Discussion
05/10/2005 04:20:41 PM	TASK	Process Manager	Scheduled	Development Manager	Our Browser	WEB	
05/10/2005 04:22:37 PM	TASK	Development Manager	In Development	Developer One	Our Browser	WEB	
06/08/2005 11:11:09 AM	CLONED_AS	Development Manager	In Development	Developer One	Our Browser	WEB	Cloned As 22

Printing a Record

A record can be formatted for printing from the View page by clicking on the Format for Printing link in the upper right corner of the View Page.

On the Format For Printing page, either click on the **Print** link in the upper right corner or use your browser's print function to print the record. To return to the View page, click on the **Format for Viewing** link in the upper right corner.

Cloning a Record

If you have been assigned permission to Clone (create a copy of) a record, there will be a **Clone** link in the upper right corner of the View page. When you click **Clone** (and click **OK** to confirm that you wish to clone this record) a new record will be added with the same values for all fields as the record you are currently viewing. After the clone operation completes, the record number of the new record will be displayed in the Status bar and you will be viewing the clone ("child" record). You can then use the Edit or Task function to modify some of the fields in the child record. You can also search for clones by setting the "Clone:" criteria on the Query page to "Yes" (or including "<Clone> is True" as a Query Phrase in an Advanced Query). Additionally, you can include information about clones in a Report Layout by selecting "(Clone)" (this will add a column that displays Yes or No based on whether or not the record is a clone of another record) and/or "(Parent PRN)" (this will add a column that displays the record number of the parent record if it has a parent or -1 if not) as a column.

Your Tracker administrator can also configure some Task operations (Transitions) to combine the Clone and Task function into a single operation (a Task operation that will clone a record and then modify the clone). Cloning from the Task operation allows much greater control over when a record may be cloned (based on the current Status of the record) and which fields (in the child record) must (or, optionally, may be) changed when a copy (clone) of a record is created. If your administrator has configured such Task operations, you may find that cloning from the View page has been disabled.

When the clone operation is performed, a Record History entry will be added to the parent record to note that a clone was created. Likewise, the child Record History will include an entry noting that it was created as a clone of another record. Information about "related" records is also available in the Clone Info section of the View page.

Note: When you use the Clone operation, only the fields will be copied from the original record. Associated information such as Attachments, Record History, Source Code File Associations, Discussion Threads, and Alert Settings will not be copied from the parent record. However, if you have been given permission to view clone info, you can easily view these items in the parent record by clicking on the **parent** link in the appropriate section of the child record (e.g. click the **parent** link in the Attachments section of the child to view the Attachments section in the parent). Also, if you use the Task operation to perform cloning, your administrator can configure (on a per Transition basis) whether or not to copy Attachments or Source Code File Associations to the clone (child record) during the Task operation.

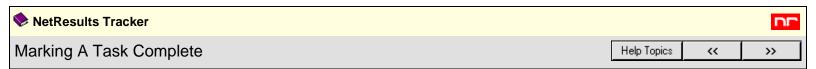
Add Similar

If you don't wish to create an exact copy of the record you are viewing, but instead would like to add a new record that is similar to the existing record (or if you don't have permission to use the Clone operation), you can click the **Add Similar** link in the upper right corner of the View Page. This will bring you to the Add page and fill in all fields (that are displayed on the Add page) with values from the record you were viewing. You can then modify any field values and click the Add button to add a record similar to the one you were previously viewing.

Note: Unlike the Clone operation, no fields that are not visible on the Add page will be copied when you use Add Similar. Add Similar just sets the initial values for fields displayed on the Add page (it's as if you clicked the Add button and then set all the fields you see to exactly match those of the record you were viewing). In the case of the Status and Assigned To fields, it may not be possible to set these fields exactly as they are set in the record you were viewing because certain values may not be allowed on the Add page. If that occurs for either the Status or Assigned To fields, the Add page will be set with the default values for the Status and/or Assigned To field.

Clone vs. Add Similar

In general, Add Similar should be used when you want to create a new issue that starts at the first step in your workflow (business process). Clone should be used if you wish to have several issues share a common workflow (parent record) up to a certain point (step where the child records were created) or you wish to create (child) records to represent "subtasks" of the parent record (so, for instance, you could delegate parts of a larger task to other individuals and keep track of the status of the subtasks independently).



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To indicate that the work necessary for a particular process state has been completed you should use the Task operation. You can find the **Task** icon on your Tracker home page, on the query results page, or on the Button Bar.

You can perform the Task operation on a record by using the icon in the Button Bar or the Task icons available in the reports on the Home and Query pages.

To perform the **Task** operation on a record in a report on the Home Page:

- 1. Login to the workgroup
- 2. Click on the Task icon in the Action column to the left of the record you wish to process in one of the reports on the Home Page
- 3. Select a transition and click on the **OK** button to proceed
- 4. If there are any task fields available for the selected transitions, make changes to the appropriate fields and click OK
- 5. A confirmation page will be displayed. If you wish to perform the Task operation on another record, enter the PRN for the record in the **Task another record** field and click on the **Task** button or click on the **Go To Home Page**. button to return to the Home Page

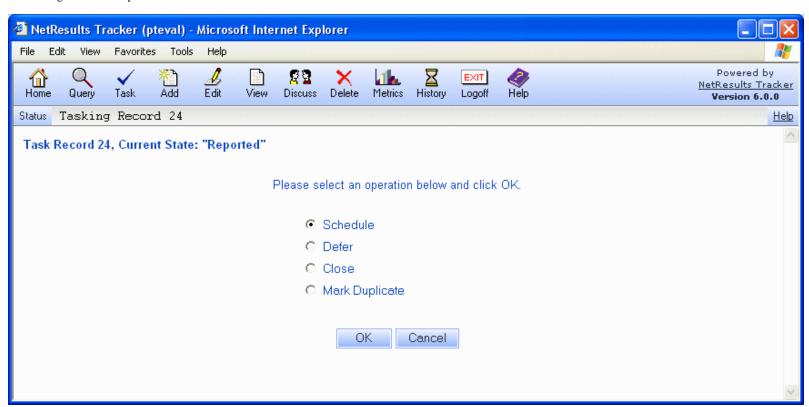
To perform the Task operation on a record in a report on the Query Page:

- 1. Login to the workgroup
- 2. Click on the Query icon in the Button bar
- 3. Run a report either by entering criteria to run an ad-hoc query or by running a saved query
- 4. When the results are displayed, click on the Task icon in the Action column to the left of the record you wish to process
- 5. Select a transition and click on the **OK** button
- 6. If there are any task fields available for the selected transitions, make changes to the appropriate fields and click OK to return to the Query results

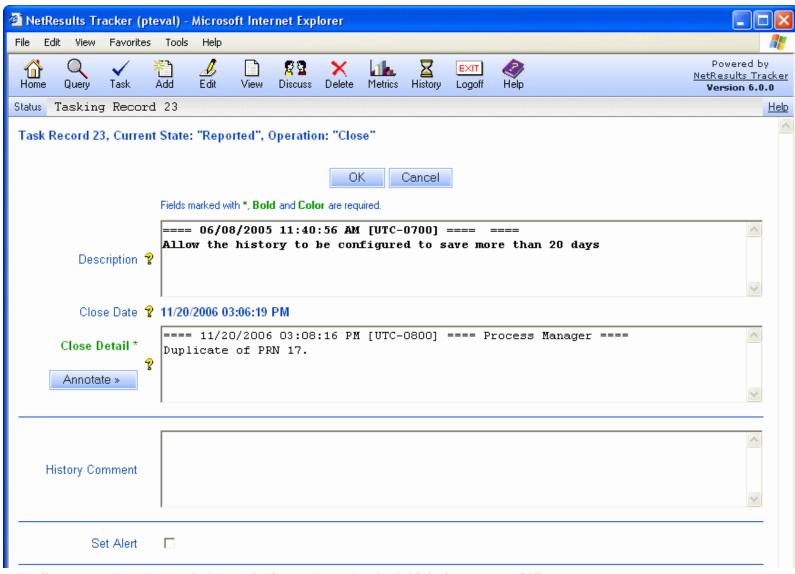
To perform the **Task** operation using the icon in the Button bar:

- 1. Login to the workgroup
- 2. Click on the Task icon in the Button bar
- 3. Enter the PRN of the record you would like to process and click OK
- 4. Select a transition and click on the **OK** button
- 5. If there are any task fields available for the selected transitions, make changes to the appropriate fields and click **OK** to save the changes
- 6. A confirmation page will be displayed. If you wish to perform the Task operation on another record, enter the PRN for the record in the **Task another record** field and click on the **Task** button or click on either the **Go To Home Page** or **Go To Last Query Results** buttons

Depending upon the current state, there may be one or more choices displayed in order to mark a task complete. The choices, called Transitions, can be displayed as clickable buttons, radio buttons, or a pulldown menu.



Once you select a choice, the next screen will show the appropriate fields required to be filled out for completing a task.





Fields and / or a history comment may be displayed after selecting a transition. The fields presented are called task fields. Some of these fields may be for your information only (read-only task fields) and cannot be modified. Other fields including the history comment may require a modification before you can click **OK** to proceed. Depending on how your Tracker has configured the system, there may be some text above the task fields to explain which are required. For example, the following text or something similar can be displayed to identify required fields: "Fields marked with *, **Bold** and **Color** are required fields."

The field help icon will be displayed if you have checked the box for the **Enable Field Help** preference and your Tracker Administrator has entered information to describe this field. Move your cursor over this icon to see a description of the field.

When a date field is present during the Task operation, you can click on the calendar icon to select a date or you can manually enter a date in the appropriate format (e.g. "mm/dd/yyyy HH:MM:SS AM/PM" or the date & time format selected in the Preferences section.). The time component is optional. Click on the day to select the date to be entered into the date field. Click < or > to move backward or forward one month or click << or >> to move backward or forward one year. Click Now to set the date field to be the current date and time. Click on Exclude Time if you want to exclude the time information from being saved in the date field. For a field where the time information has previously been excluded, click Set Time if you wish to include the current time information in the field. Click OK to choose the highlighted date to be entered into the date field. Date will be selected and calendar dismissed when a date is clicked when the time is excluded. Dates displayed in red are non-business days according to the Business Days option in the Preferences section. Click Cancel to dismiss the calendar without saving changes.

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When large text fields are present, an **Annotate** button will be displayed to the left of the field. Clicking on the Annotate button will add a date and time stamp with your User ID to the field. This makes it easy to distinguish which information within the field has been added by you or another user.

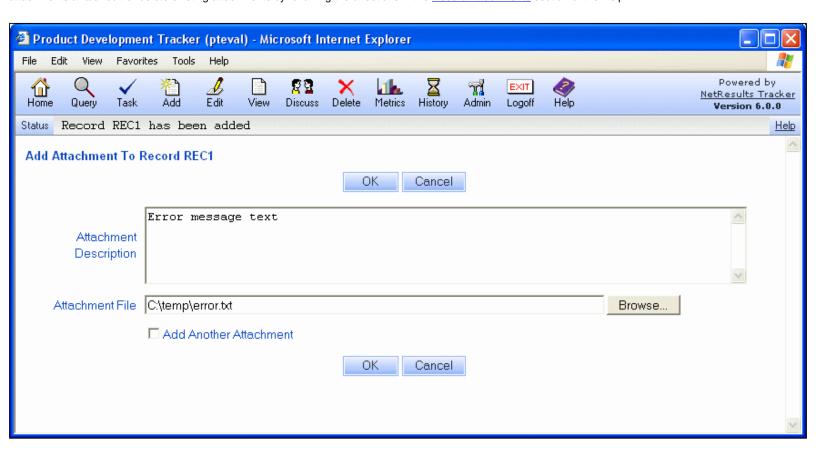
To view the full contents of the large text fields, use the scroll bar on the right of the field. Alternatively, the number of lines displayed for these large text fields can be customized by setting the value of the **Display Window** option in the Multi-line Field Settings section on your <u>Preferences</u> page.

Link fields are fields that allow records to be linked to one another. For example, if different types of forms are available in your Tracker workgroup, your Tracker Administrator may have set up Link field so records created by one form can be linked to records created using another form. When a Link field is presented during the Task operation, any records that have been linked will be displayed. To add items to the Link field, click on the **Add Items** button. A list of items that can be added will be displayed (if you are using a browser other than Internet Explorer, the list will not be displayed until you click on the **Find** button). To search for items using a key word(s), type the key word(s) into the Search Criteria field and click on the **Find** button. Any items that matched your key word(s) will be displayed. To select an item, click on the item. To select multiple items, hold down the **Ctrl** button on your keyboard while clicking on the items to be added. Click on the **Add** button to add the selected items to the Link field. To remove items from the Link field, click on the item, then click on the **Delete** button. To select multiple items, hold down the **Ctrl** button on your keyboard while clicking on the items to be deleted.

If your Tracker Administrator has configured the transition you selected to allow attachments to be saved to the record, the option **Add Attachment(s)** will be available. Check the box for this option if you wish to save an attachment to the record you are processing. To **add a file attachment** to the record:

- Check the Add Attachment box at the bottom of the Add page
- 2. Click on the **OK** button to complete the Task operation
- 3. Enter a meaningful description for the Attachment (this will be displayed when someone subsequently views the record) in the **Attachment Description** field.
- 4. Click the **Browse** button (to the right) to select the file from your local machine.
- 5. If you wish to add another attachment, check the **Add Another Attachment** box at the bottom, then click **OK** to proceed. You will be prompted to enter the attachment description and browse to the file for the second attachment file. If you do not wish to add another attachment, simply click on the **OK** button to complete the operation.

After you have processed a record using the Task operation (and if you have been given the appropriate privileges by your Administrator), you can add more attachments and/or edit or delete existing attachments by following the directions in the Record Attachments section of the Help.



If your Tracker Administrator has configured the transition you selected to allow source code files to the associated to the record, the option **Associate Source Code**File(s) will be available. Check the box for this option if you wish to associate source code files to the record you are processing. To associate a source code file to a record:

- 1. During the Task operation, the option **Associate Source Code File(s)** will be available. Check the box to associate source code file(s) to the record you are processing.
- 2. After clicking OK, a new form will appear. The left column will show a directory listing the projects in your Source Code Control database. "\$" denotes the root of the database. Double click on a project folder to expand it one level. Navigate to find the file you wish to associate to the record. The list of files will appear on the right column. Select a file in the right column by clicking on it.
- 3. If desired, enter a version number in the field **The problem was found in version**.
- 4. If desired, enter a version number in the field **The problem was fixed in version**.
- 5. If you wish to associate another source code file, check the box for the option **Associate Another Source Code File**, then click **OK** to complete the operation. If you checked the box to associate another source code file, repeat the above steps to associate another file.

After you have processed a record using the Task operation (and if you have been given the appropriate privileges by your Administrator), you can associate more source code files and/or remove existing files by following the directions in the Source Code Control Help section.

Note that once you click OK to complete the Task operation, Tracker automatically advances the record to the next process state, and assigns the record to the next appropriate user.

If your Tracker Administrator has configured the transition you selected to "clone" (create a copy of) the record you originally selected, the Task operation will first create a copy of the original record, then the Task operation will be performed on the clone (child record). All of the fields you update (Task Fields) and other changes (such as assignment and status changes) that are made by the Task operation will be made to the clone. When a Task operation that clones a record completes, the record number that is displayed will be the record number of the (newly created) clone, not the (parent) record you originally selected. Typically, the Transition name will also reflect the fact that a clone operation will be done (e.g. "Copy Record", "Add Subtask", etc.). Review the Cloning a Record, section of the View page Help for further information on record cloning.

After clicking on the **OK** button, if your Tracker workgroup is set up to send email notification messages when a record has been processed using the Task operation, you will see a message "Sending Email Notifications...Please wait". This message indicates that the changes to the record have been saved and Tracker is sending the email notification messages.

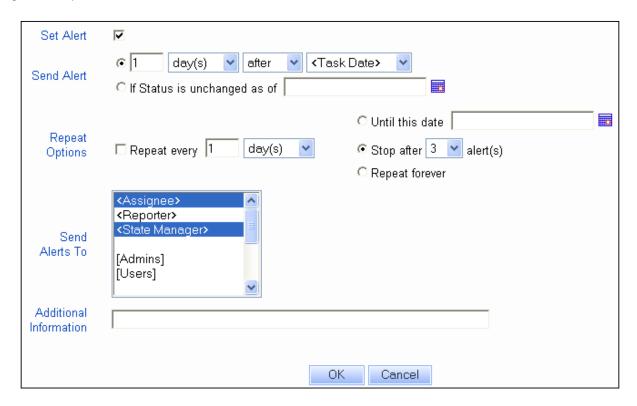
Alerts (Enterprise Edition Only)



Alerts are email notification messages that can be configured for a record. You can set an alert to remind you about a particular record at a later date and time.

You can also set an alert to be sent to other users and groups in your organization.

If you have been given the appropriate privileges, you may be given the option to set an alert during the Task operation as shown below. Details on how to configure Alert settings during the Task operation can be found in the Alerts section.





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You can edit a record from reports on the Home or Query pages or by using the Edit icon in the Button bar.

To edit a record from a report on the Home Page:

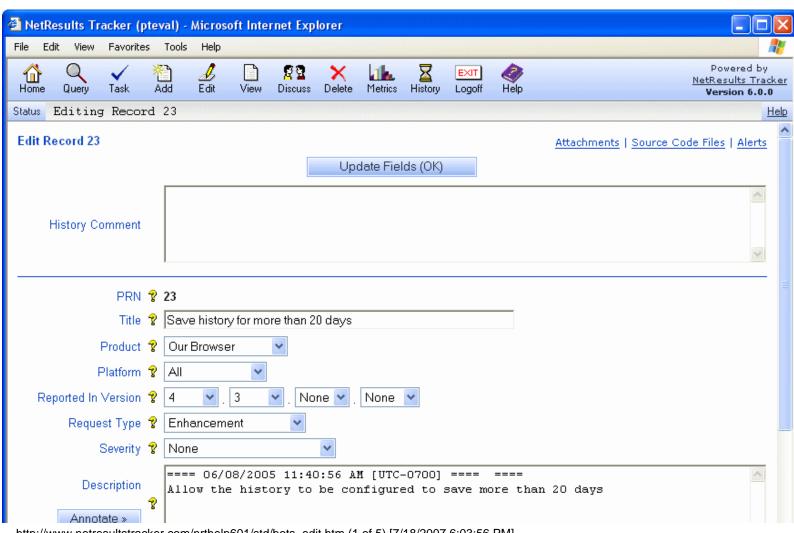
- 1. Login to the workgroup
- 2. Click on the Edit icon located in the Action column of one of the Home Page reports to the left of the desired record
- 3. Make any desired changes
- 4. Click on the Update Fields (OK) button to save the changes and return to the Home Page

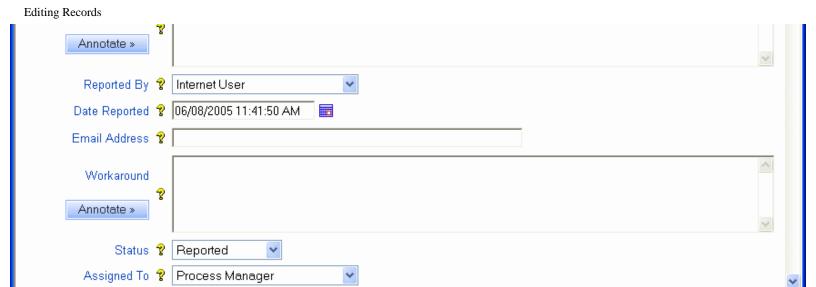
To edit a record from a report on the Query Page:

- 1. Login to the workgroup
- 2. Click on the Query icon in the Button bar
- 3. Run a report either by entering criteria to run an ad-hoc report or run a saved query
- 4. When the results are displayed, click on the Edit icon located in the Action column to the left of the record you wish to modify
- 5. Make any desired changes
- 6. Click on the Update Fields (OK) button to save the changes and return to the Query results

To edit a record using the Edit icon in the Button bar:

- 1. Login to the workgroup
- 2. Click on the Edit icon in the Button bar
- 3. Enter the PRN for the record you wish to modify and click OK
- 4. Make any desired changes
- 5. Click on the **Update Fields (OK)** button to save the changes
- 6. Enter the PRN of another record you wish to modify in the Edit another record field and click on the Edit button or click on either the Go To Home Page or Go To Last Query Results buttons.





The edit form allows you to directly modify any field of the record. This can be useful if you wish to update a description, or force a record to a particular process state (for instance, mark a record as "Released" before it has been tested). After making changes to the fields on the Edit page, click on the **Update Fields (OK)** button to save your changes.

If you have made changes to the fields on the Edit page, but do not wish to save the changes, you can click on the **Cancel** button to abort your changes and immediately return to the previous page you were viewing. Or, if you have made changes, but wish to reset the fields to their previous values (the values the fields had before you made changes), you can click on the **Reset** button to restore the original values of the fields.

When you edit the record you can also enter a comment that will be saved in the <u>history</u> for the record. This can be useful in the future to help determine why the record was edited. Up to 2000 characters can be entered into the **History Comment** field.

The field help icon will be displayed if you have checked the box for the **Enable Field Help** preference and your Tracker Administrator has entered information to describe this field. Move your cursor over this icon to see a description of the field.

When a date field is present on the Edit Page, you can click on the calendar icon to select a date or you can manually enter a date in the appropriate format (e.g. "mm/dd/yyyy HH:MM:SS AM/PM" or the date & time format selected in the Preferences section.). The time component is optional. Click on the day to select the date to be entered into the date field. Click < or > to move backward or forward one month or click << or >> to move backward or forward one year. Click Now to set the date field to be the current date and time. Click on Exclude Time if you want to exclude the time information from being saved in the date field. For a field where the time information has previously been excluded, click Set Time if you wish to include the current time information in the field. Click OK to choose the highlighted date to be entered into the date field. Date will be selected and calendar dismissed when a date is clicked when the time is excluded. Dates displayed in red are non-business days according to the Business Days option in the Preferences section. Click Cancel to dismiss the calendar without saving changes.

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Set Time							
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When large text fields (TextArea) are present, an **Annotate** button will be displayed to the left of the field. Clicking on the **Annotate** button will add a date and time stamp with your User ID to the field. This makes it easy to distinguish which information within the field has been added by you or another user.

To view the full contents of the large text fields, use the scroll bar on the right of the field. Alternatively, the number of lines displayed for these large text fields can be customized by setting the value of the field **Display Window** in the Multi-line Field Settings section on your <u>Preferences</u> page.

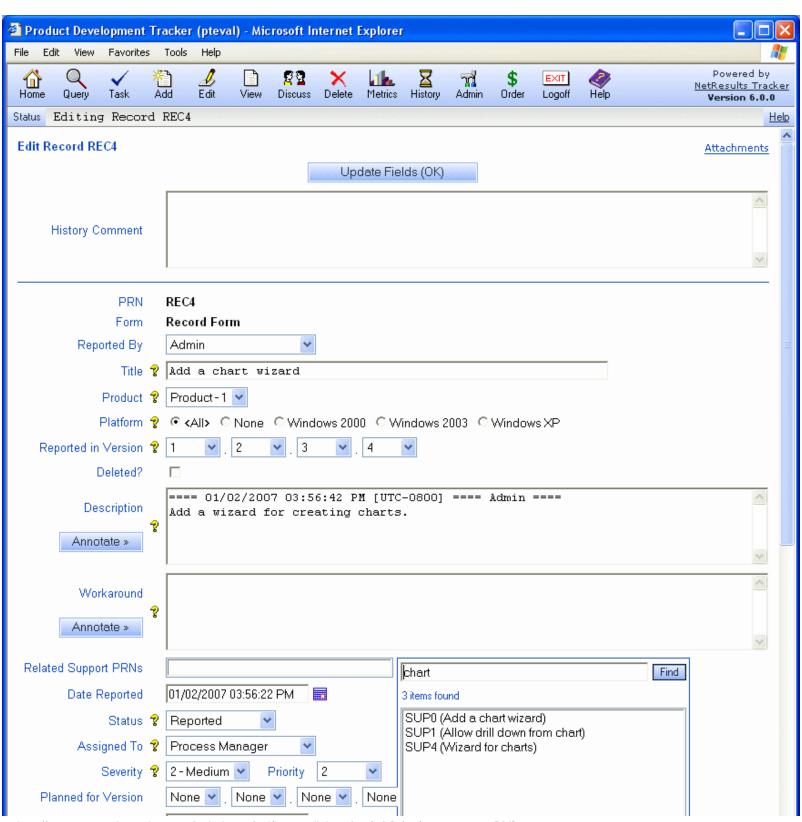
Your Tracker may have been configured to have dependent pulldown fields. Dependent pulldowns are pulldown fields where the option menu values displayed in one pulldown are determined by the value selected in the pulldown it is dependent on. If you change the value selected in a parent pulldown field, it may change the values available in the child pulldown menu based on the relationship set up between the two fields.

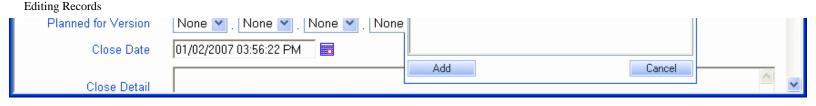
After clicking on the **Update Fields (OK)** button, if your Tracker workgroup is set up to send email notification messages when records are edited, you will see a message "Sending Email Notifications...Please wait" in the Status bar. This message indicates that the changes have been made to the record and Tracker is

sending the email notification messages.

Link Fields

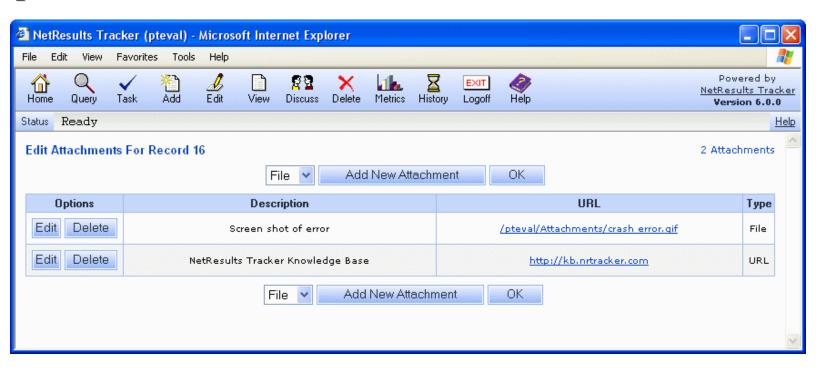
Link fields are fields that allow records to be linked to one another. For example, if different types of forms are available in your Tracker workgroup, your Tracker Administrator may have set up Link field so records created by one form can be linked to records created using another form. When a Link field is included on the Edit Page, any records that have been linked will be displayed. To add items to the Link field, click on the **Add Items** button. A list of items that can be added will be displayed (if you are using a browser other than Internet Explorer, the list will not be displayed until you click on the **Find** button). To search for items using a key word(s), type the key word(s) into the Search Criteria field and click on the **Find** button. Any items that matched your key word(s) will be displayed. To select an item, click on the item. To select multiple items, hold down the **Ctrl** button on your keyboard while clicking on the items to be added. Click on the **Add** button to add the selected items to the Link field. To remove items from the Link field, click on the item, then click on the **Delete** button. To select multiple items, hold down the **Ctrl** button on your keyboard while clicking on the items to be deleted.





Record Attachments

The edit page also allows you to add, edit, or remove an attachment for the record. The Record Attachments section contains more details.

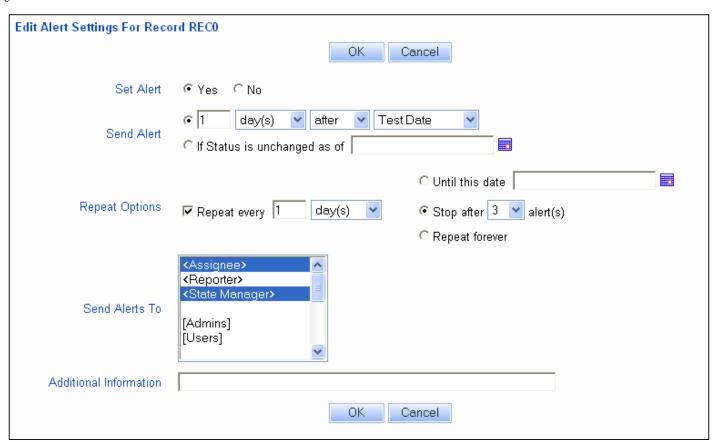


Source Code Control

If you have been assigned permission to edit the source code list, you will be able to add, edit or remove source code files for the record. The Source Code Control section has more details about this feature.

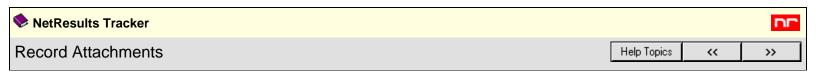
Alerts - Enterprise Edition Only

If you have been assigned permission to edit the alert settings for a record, you will be able to set up an alerts for the record as shown below. Refer to the Alerts section of this Help Guide for more information on setting an Alert for a record.



Modifying Record Visibility

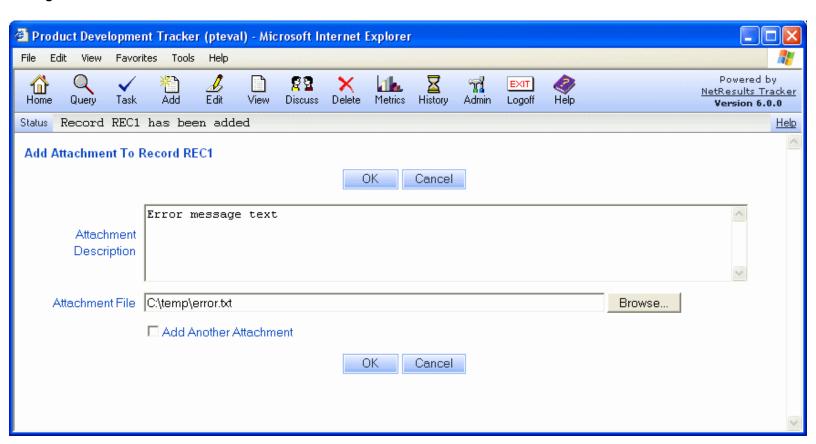
If Record Visibility has been enabled, and you are a member of a user group that is allowed to modify the visibility of a record to user groups, the field **Make Visible to These User Groups** will appear. This field is a selection list at the bottom of the page which allows you to select to which user groups this record should be visible. To select more than one user group, hold down the shift or control key while clicking on the user groups. If you wish to make a record visible only to the Admins user group, click on the blank space at the bottom of the list.



Tracker allows you to associate as many files as you wish with a record. These "attachments" can be anything from an image file, to a customer email or a website URL.

Attachments are presented as a list of standard HTML hyperlinks when the record is viewed by the user, and are presented to the user in a new browser window when clicked.

Adding an Attachment

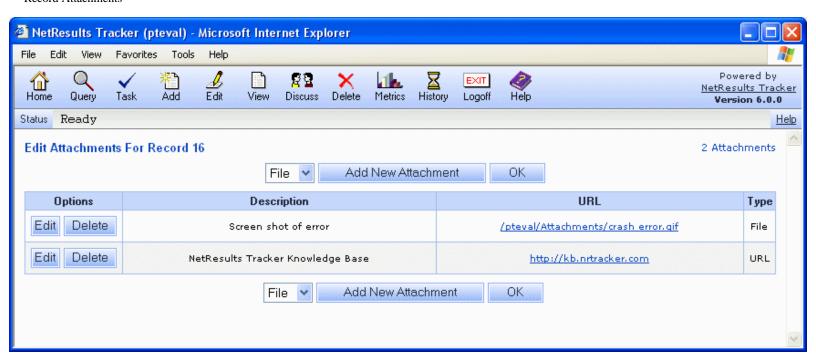


An attachment file can be included with a record when the record is first created (see <u>Adding Records</u>), when processing records (see <u>Marking a Task Complete</u>) or it can be added to a record by following these steps:

- 1. Edit the desired record, either by navigating to it via a guery result, or via the **Edit** icon
- 2. Click on the Attachments link in the upper right corner of the Edit Page. A form appears that displays the current attachments associated with the record.
- 3. Select the type of attachment you are adding. **File** is a file which will be uploaded to your server. **URL** is a URL specification (which is not uploaded to the server). The URL attachment type may be useful when tracking problems on web sites.
- 4. Click on the Add New Attachment button
- 5. In the form displayed, enter a meaningful description of this attachment in the Attachment Description: field
- 6. If you have selected a File attachment, use the **Browse** button to select the file from your local machine. If you have selected a URL attachment, type in the URL you wish to add as an attachment. Please include the protocol portion of the URL (e.g. http://, ftp://, file://, etc.) for URL attachments. Without the protocol portion entered in the URL, you won't be able to use the link you have saved.
- 7. Click on the **OK** button

If you should encounter any errors when uploading files to the server, a list of the files which encountered problems and the associated error messages will be displayed at the top of the next page.

Editing an Attachment



To edit an existing attachment, follow these steps:

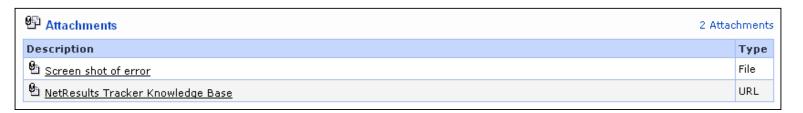
- 1. Edit the desired record, either by navigating to it via a query result, or via the **Edit** icon
- 2. Click on the Attachments link in the upper right corner of the Edit Page. A form appears that displays the current attachments associated with the record.
- 3. Locate the desired attachment in the table and click on the Edit button that appears in the same row
- 4. In the form displayed, edit the attachment URL or description. If the attachment is a File attachment, you will not be presented with the option to edit the URL.
- 5. Click on the **OK** button

Removing an Attachment

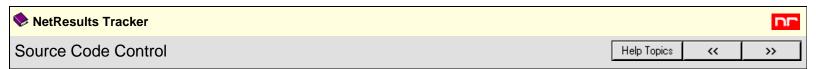
To delete an existing attachment, follow these steps:

- 1. Edit the desired record, either by navigating to it via a query result, or via the **Edit** icon
- 2. Click on the Attachments link in the upper right corner of the Edit Page. A form appears that displays the current attachments associated with the record.
- 3. Locate the desired attachment in the table and click on the **Delete** button that appears in the same row
- 4. Click on the **OK** button

Viewing Attachments



Attachments to records appear as a list of descriptions and clickable links when the record is <u>viewed</u>. The action that occurs when the link is clicked depends upon the actions defined for each file type in the user's browser and on the file extension to file type mapping used by your web server. Please refer to your web browser's documentation for details on how to set up actions to handle various file types. Please contact your web site administrator if a file is not being mapped to the appropriate file type by your web server.



Tracker allows you to associate any source code file from your Source Code Control system to a record.

The source code files are presented as a list when the record is viewed as shown below.

Source C	ode Files			1 Files
Operations	File	Project	Problem Version	Fixed Version
	frmComment.frm	\$/PROJECT1/Project11/Project111/	1 2.2	2.3.1

The source code list within each record can be edited to add or remove source code file associations.

In addition, a history of older versions of each source code file can be viewed. The older versions can be compared to display the differences within the source code file.

Source Code Control Login Settings

Each user must supply their SourceSafe Login Settings in order to edit the source code list.

To enter the login information, each user should:

- 1. Login to the workgroup
- 2. Click on the Preferences link
- 3. In the SourceSafe Login Settings section, enter the User ID and Password he or she uses to access the Microsoft Visual SourceSafe database
- 4. Click **OK** to save these settings

Associating a Source Code File to a Record

Source code files can be associated to a record when processing a record (see Marking a Task Complete) or by using the steps below:

- 1. Edit the desired record, either by navigating to it via a query result, or via the **Edit** icon.
- 2. Click on the Edit Source Code List button. A form appears that displays the current source code files associated with the record.
- 3. Click on the button labeled Add New Source Code File.
- 4. A new form will appear. The left column will show a directory listing the projects in your Source Code Control database. "\$" denotes the root of the database. Double click on a project folder to expand it one level. Navigate to find the file you wish to associate to the record. The list of files will appear on the right column. Select a file in the right column by clicking on it.
- 5. If desired, enter a version number in the field **The problem was found in version**.
- 6. If desired, enter a version number in the field **The problem was fixed in version**.
- 7. Click **OK** to associate the file to the record. A confirmation message will be displayed, click **OK** to proceed.

Editing the List of Source Code Files

For each source code file that has been associated with a record, you can edit the version information in the fields **The problem was found in version** and **The problem was fixed in version**. You can also replace the source code file with another one from the Source Code Control database.

To edit an entry on the Source Code List:

- 1. Edit the desired record, either by navigating to it via a query result, or via the **Edit** icon.
- 2. Click on the Edit Source Code List button. A form appears that displays the current source code files associated with the record.
- 3. Click on the **Edit** button to the right of the entry you wish to modify.
- 4. To replace a file, navigate to the appropriate project folder in the left column, then double click on the file name in the column on the right.
- 5. If desired, modify the fields The problem was found in version and The problem was fixed in version.
- 6. When modifications are complete, click **OK**, then **OK** again to confirm.

Removing a Source Code File Association from a Record

To remove a file from the Source Code List:

- 1. Edit the desired record, either by navigating to it via a query result, or via the **Edit** icon.
- 2. Click on the **Edit Source Code List** button. A form appears that displays the current source code files associated with the record.

3. Click on the **Delete** button to the right of the entry you wish to delete, then click **OK** to confirm.

Viewing the History of a Source Code File

The history of each source code file can be accessed via the source code list within a record. The history has an entry for each version of the file that has been checked into the source code control database. The history information collected for each version includes file type, date of action (check-in, check-out, etc.), user who performed action, and any comments entered about the action. From this list of history entries, you can generate a comparison between two versions of the source code file.

To view the history for a source code file:

- 1. View the desired record, either by navigating to it via a query result, or via the **View** icon.
- 2. Scroll down to the list of Source Code files associated with the record.
- 3. Click on the **History** button to the left of the source code file you wish to see.
- 4. If desired, enter a version number in the fields **Problem Version** and **Fixed Version**. Leaving these fields blank will generate history information for all versions.
- 5. To see the details of a version listed in the history, click on the version you wish to see. The history details of the version will be displayed.
- 6. Additionally, a difference between versions can be generated from the history listing of a source code file. The two columns in the File History, called Base and Against, contain radio buttons where you can select 2 versions to compare for a list of differences. In the **Base** column, click on the radio button for the oldest version you wish to compare. In the **Against** column, click on the radio button for the latest version you wish to compare. Click on the **Diff** button at the top to generate the differences between the versions selected.

Comparing Versions of a Source Code File



The history contains an archive of each version of a source code file. Any two versions can be compared to display the differences. This is especially useful to be able to see the specific changes that were made in a source code file to fix a particular problem or introduce an enhancement.

There are 2 ways to generate a list of differences between 2 versions:

Method 1

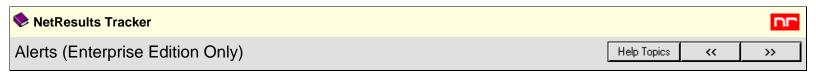
- 1. View the desired record, either by navigating to it via a query result, or via the **View** icon.
- 2. Scroll down to the list of Source Code files associated with the record.
- 3. Click on the **Differences** button to the left of the source code file you wish to see.
- 4. If desired, enter a version number in the fields **Problem Version** and **Fixed Version**. Leaving these fields blank will compare the oldest and latest versions. Then, click **OK** to generate the list of differences.

Method 2

- 1. View the desired record, either by navigating to it via a query result, or via the **View** icon.
- 2. Scroll down to the list of Source Code files associated with the record.
- 3. Click on the **History** button to the left of the source code file you wish to see.
- If desired, enter a version number in the fields Problem Version and Fixed Version. Leaving these fields blank will generate history information for all versions.
- 5. The two columns in the File History, called Base and Against, contain radio buttons where you can select the versions to compare. In the **Base** column, click on the radio button for the oldest version you wish to compare. In the **Against** column, click on the radio button for the latest version you wish to compare. Click on the **Diff** button at the top to generate the differences between the versions selected.

Querying Records for Source Code Information

Users that are members of user groups with the "View Source Code Files" privilege enabled are able to include Source Code related fields in the criteria of a standard or advanced query. The fields "Source Code File", "Problem Version", and "Fixed Version" are displayed in the standard and advanced query pages. You can enter text and version information into these fields to be used as search criteria in the query. For details on running queries, please refer to the Querying Records or Advanced Queries Help sections.



Note: This feature is only available in Tracker Enterprise Edition.

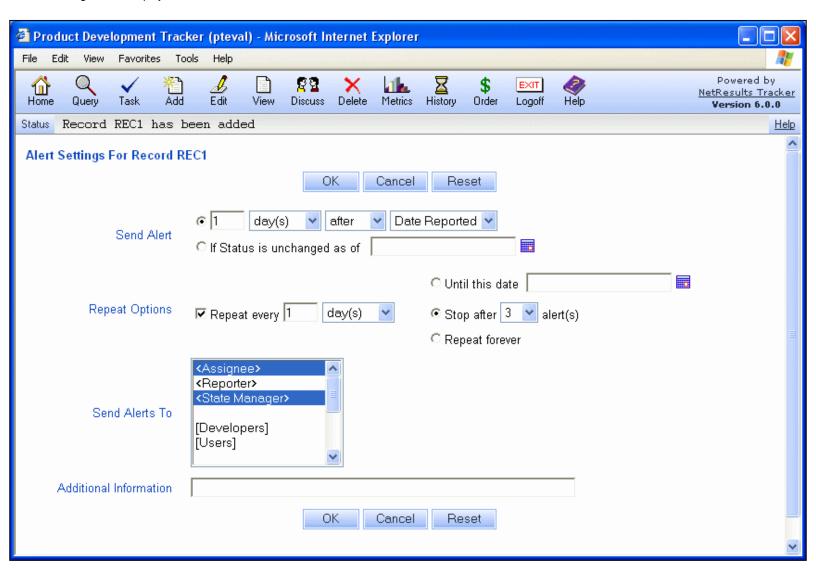
Alerts are a form of email notification messages that can be triggered by a lack of change in a record's state within a certain time period. For example, a record should not stay within a particular state for longer than 2 days. An alert can be sent if the record is still within the same state after a period of 2 days has passed. Alerts can also be used as a reminder or alarm type feature; they can be triggered relative to any date field in the record or can be set to notify users at a certain date and time after a record has been processed using the Task operation.

Alerts can be configured per record. Each record can have different alert settings including when, how, how often, and to whom the alerts should be sent.

When specifying when to send an alert either for a given record or a transition, a fixed date and time can be entered or a date and time based on a date field within the record can be used. In addition, alerts can be sent once or configured to repeat periodically. Any combination of users and / or user groups can receive alerts for a particular record.

Setting Alerts during the Add Operation

Depending on the product you selected, you may have the option to set an alert for the record you are creating. If you are allowed to set an alert for the record, the box **Set Alert** will appear at the bottom of the Add form. Check the box if you wish to set an alert for the record. After clicking the **Add** or **Add & Copy** button, the Alert settings will be displayed as shown below.



Send Alert

The user can select when the alert should be sent. A relative or absolute time can be specified. A relative time can be selected by choosing the radio button to the left of the option **X <Interval> <before or after> <Date> where X can be any number from 1 to 99, <interval> can be hours, days, weeks, or**

months, and <Date> can be <Now> or another date field in the record. Example 1: If "5 days after <Now>" is selected, the alert will be sent 5 days after the record is added. Example 2: If "10 hours before <Due Date>" is selected, the alert will be sent 10 hours before the date and time entered in the field called "Due Date" in the record.

If a date field is selected as the date to generate an alert and this date field has no value in a record, an alert will not be generated. If a date field is selected as the date to generate an alert and this date field is later removed from the record, then <Now> will be set as the date to generate an alert (to replace the date field that was removed).

An absolute time can be selected by choosing the radio button to the left of the option If state is unchanged as of <Date and Time> where <Date and Time> is any date and time you choose. The <Date and Time> entered should comply with the date and time formats in the user's preferences. For example, if the user has "mm/dd/yyyy" selected as the date format and "12 hour" as the time format, the information entered for <Date and Time> in the alert settings must be of the form "mm/dd/yyyy hh:mm:ss PM". The time component is optional. You can select a date by clicking on the Calendar icon. Click on the day to select the date to be entered into the date field. Click < or > to move backward or forward one month or click << or >> to move backward or forward one year. Click Now to set the date field to be the current date and time. Click on Exclude Time if you want to exclude the time information from being saved in the date field. For a field where the time information has previously been excluded, click Set Time if you wish to include the current time information in the field. Click OK to choose the highlighted date to be entered into the date field. Date will be selected and calendar dismissed when a date is clicked when the time is excluded. Dates displayed in red are non-business days according to the Business Days option in the Preferences section. Click Cancel to dismiss the calendar without saving changes.

Repeat Options

The user can select whether an alert should be repeated after the first alert is sent. Checking the box to the left of **Repeat every X <interval>** will enable an alert to be sent multiple times. The user can enter any number from 1 to 99 and select hour, day, week, or month as the <interval>. An alert can be repeated until a particular date (select the radio button for **Until this date <Date>** and enter a date), or after the alert has been sent a particular number of times (select the option **Stop after X alert(s)** where X is a number from 1 to 10), or forever (select the option **Repeat forever**).

Send Alerts To

The user can choose which users or user groups will receive the alert. To select multiple users and / or groups, hold down the **CTRL** button on your keyboard while clicking on the users / groups. Depending on the configuration selected by your Tracker Administrator, the user groups displayed may only be those groups of which you are a member.

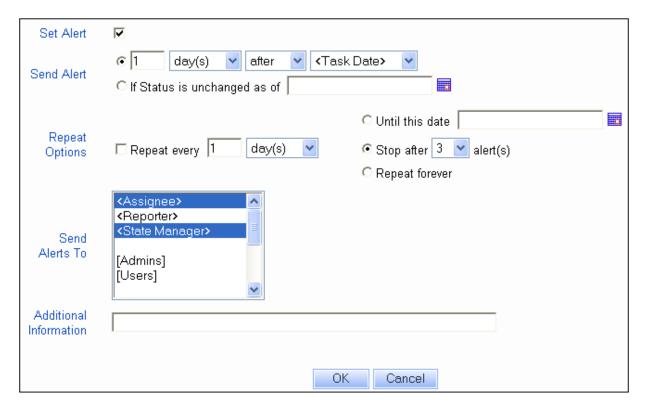
Additional information

Up to 80 characters can be entered. This information will be included in the alert notification email.

These alert settings will be in effect for the newly added record until the state is changed either via the Task or Edit operations or if the alert settings are changed in the Edit Alerts section.

Configuring Alert Settings during Task Operation

When the task operation is performed on a record, you may be prompted to configure alert settings as shown below.



Alerts (Enterprise Edition Only)

Set Alert

Checking the box for this option indicates an alert should be generated using the alerts settings below. Unchecking the box indicates that no alert should be sent

Send Alert

The user can select when the alert should be sent. A relative or absolute time can be specified. A relative time can be selected by choosing the radio button to the left of the option **X <Interval> <before or after> <Date>** where X can be any number from 1 to 99, <interval> can be hours, days, weeks, or months, and <Date> can be <Task Date> or another date field in the record. Example 1: If "5 days after <Task Date>" is selected, the alert will be sent 5 days after this task operation is complete. Example 2: If "10 hours before <Due Date>" is selected, the alert will be sent 10 hours before the date and time entered in the field called "Due Date" in the record.

If a date field is selected as the date to generate an alert and this date field has no value in a record, an alert will not be generated. If a date field is selected as the date to generate an alert and this date field is later removed from the record, then <Task Date> will be set as the date to generate an alert (to replace the date field that was removed).

An absolute time can be selected by choosing the radio button to the left of the option **If state is unchanged as of <Date and Time>** where <Date and Time> is any date and time you choose. The <Date and Time> entered should comply with the <u>date and time formats</u> in the user's preferences. For example, if the user has "mm/dd/yyyy" selected as the date format and "12 hour" as the time format, the information entered for <Date and Time> in the alert settings must be of the form "mm/dd/yyyy hh:mm:ss PM". The time component is optional. You can select a date by clicking on the **Calendar** icon. Click on the day to select the date to be entered into the date field. Click < or > to move backward or forward one month or click << or >> to move backward or forward one year. Click **Now** to set the date field to be the current date and time. Click on **Exclude Time** if you want to exclude the time information from being saved in the date field. For a field where the time information has previously been excluded, click **Set Time** if you wish to include the current time information in the field. Click **OK** to choose the highlighted date to be entered into the date field. Date will be selected and calendar dismissed when a date is clicked when the time is excluded. Dates displayed in red are non-business days according to the **Business Days** option in the **Preferences** section. Click **Cancel** to dismiss the calendar without saving changes.

Repeat Options

The user can select whether an alert should be repeated after the first alert is sent. Checking the box to the left of **Repeat every X <interval>** will enable an alert to be sent multiple times. The user can enter any number from 1 to 99 and select hour, day, week, or month as the <interval>. An alert can be repeated until a particular date (select the radio button for **Until this date <Date>** and enter a date), or after the alert has been sent a particular number of times (select the option **Stop after X alert(s)** where X is a number from 1 to 10), or forever (select the option **Repeat forever**).

Send Alerts To

The user can choose which users or user groups will receive the alert. To select multiple users and / or groups, hold down the **CTRL** button on the keyboard while clicking on the users / groups. Depending on the configuration selected by your Tracker Administrator, the user groups displayed may only be those groups of which you are a member.

Additional information

Up to 80 characters can be entered. This information will be included in the alert notification email.

These alert settings will be in effect for the record until the state is changed either via the Task or Edit operations or if the alert settings are changed in the Edit Alerts section.

Editing Alert Settings

A user can edit the alert settings for a record if they have the required privileges. A user can edit the alert settings for a record by clicking on the **Edit** icon in the top button bar and entering a record number or by clicking on the Edit icon next to a record number in a report on the Query or Home page. Clicking on the **Alerts** link in the upper right corner of the Edit Page will display the following alert settings for the record:

Edit Alert Settings For Reco	ord REC0
	OK Cancel
Set Alert	⊙ Yes C No
Send Alert	
Repeat Options	☐ Until this date ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐
Send Alerts To	<assignee> <reporter> <state manager=""> [Admins] [Users]</state></reporter></assignee>
Additional Information	
	OK Cancel

Set Alert

Selecting Yes will send an alert based on the values below

Send Alert

The user can select when the alert should be sent. A relative or absolute time can be specified. A relative time can be selected by choosing the radio button to the left of the option **X <Interval> <before or after> <Date> where X can be any number from 1 to 99, <interval> can be hours, days, weeks, or months, and <Date> can be <Now> or another date field in the record. Example 1: If "5 days after <Now>" is selected, the alert will be sent 5 days after the alert settings are saved by clicking OK. Example 2: If "10 hours before <Due Date>" is selected, the alert will be sent 10 hours before the date and time entered in the field called "Due Date" in the record.**

An absolute time can be selected by choosing the radio button to the left of the option **If state is unchanged as of <Date and Time>** where <Date and Time> is any date and time you choose. The <Date and Time> entered should comply with the <u>date and time formats</u> in the user's preferences. For example, if the user has "mm/dd/yyyy" selected as the date format and "12 hour" as the time format, the information entered for <Date and Time> in the alert settings must be of the form "mm/dd/yyyy hh:mm:ss PM". The time component is optional. You can select a date by clicking on the **Calendar** icon. Click on the day to select the date to be entered into the date field. Click < or > to move backward or forward one month or click << or >> to move backward or forward one year. Click **Now** to set the date field to be the current date and time. Click on **Exclude Time** if you want to exclude the time information from being saved in the date field. For a field where the time information has previously been excluded, click **Set Time** if you wish to include the current time information in the field. Click **OK** to choose the highlighted date to be entered into the date field. Date will be selected and calendar dismissed when a date is clicked when the time is excluded. Dates displayed in red are non-business days according to the **Business Days** option in the <u>Preferences</u> section. Click **Cancel** to dismiss the calendar without saving changes.

Repeat Options

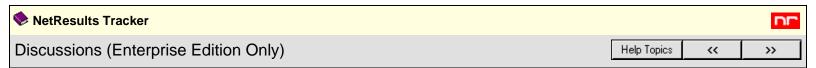
The user can select whether an alert should be repeated after the first alert is sent. Checking the box to the left of **Repeat every X <interval>** will enable an alert to be sent multiple times. The user can enter any number from 1 to 99 and select hour, day, week, or month as the <interval>. An alert can be repeated until a particular date (select the radio button for **Until this date <Date>** and enter a date), or after the alert has been sent a particular number of times (select the option **Stop after X alert(s)** where X is a number from 1 to 10), or forever (select the option **Repeat forever**).

Send Alerts To

The user can choose which users or user groups will receive the alert. To select multiple users and / or groups, hold down the **CTRL** button on the keyboard while clicking on the users / groups. Depending on the configuration selected by your Tracker Administrator, the user groups displayed may only be those groups of which you are a member.

Additional information

Up to 80 characters can be entered. This information will be included in the alert notification email.



Note: This feature is only available in NetResults Tracker Enterprise Edition.

The Discussions feature is a means of allowing users to communicate about various topics pertaining to a record. This allows users to collaborate without having to coordinate a meeting for everyone to contribute to the discussion. For example, a record may be assigned to a particular developer, but several developers are needed to provide input for an enhancement's design or the resolution of a bug. These discussions can continue in parallel to the record's progression through the workflow.

Discussions are also useful for archiving information for later use. For example, information on how to reproduce, workaround, or fix a bug can be addressed in a discussion thread. In a customer support organization, the discussion information would be useful to help the support team provide information to the customers as quickly as possible. Another example lies in integrating a new user into a project. The user can review the information present in the discussion to become familiar with the project's progress to date.

A discussion can be started for any record. The user initiating the discussion can invite other users or user groups to participate in the discussion. Within the discussion for each record, multiple threads can be started to discuss multiple topics. Users can post and reply to messages within a particular thread. Users can also choose to receive email messages to notify them about a new discussion or new posts to a discussion by subscribing to a discussion thread.

Preparation for using the Discussion feature

In order to use the Discussion feature, you must have the **Discuss** icon displayed in the top button bar. Please contact your Tracker Administrator if you do not have this icon displayed. When using the Discussion feature, you have the ability to set preferences that determine whether you should receive discussion invitations and new post notification messages by email. You can also choose how many lines of text you would like to display in the message window in the Discussion section. Review the Preferences section for details on how to customize these settings.

Access a Discussion

To access the Discussion section for a record, click on the **Discuss** icon in the button bar and enter the appropriate record number. You can also reach the Discussion by clicking on one of the Discuss icons that may be present on the Home or Query page reports.

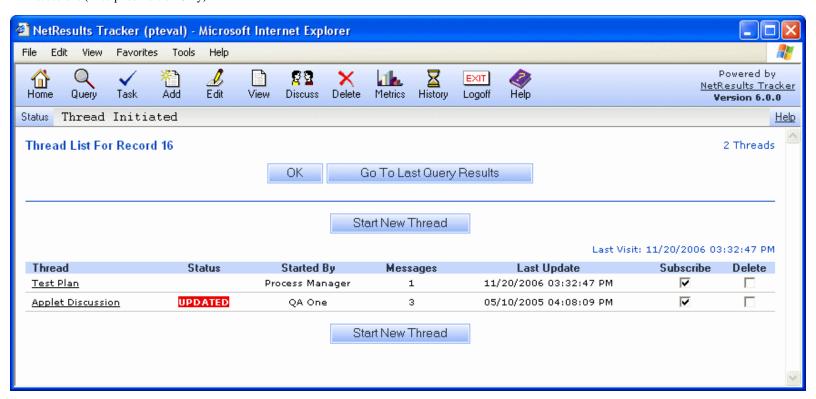
If your <u>Preferences</u> are set such that you receive a discussion invitation or new post notification by email, you can also reach the discussion by clicking on the URL listed in the email message.

Invitations and Subscriptions

Another user can invite you (or a user group in which you are a member) to participate in a discussion when he or she starts a new thread for a record. This invitation automatically subscribes you to a discussion thread. When you are subscribed to a discussion thread, this indicates you will receive notifications related to the thread based on your <u>Preferences</u>.

If you are not invited to participate in a discussion thread, you can subscribe to the thread by performing the following steps:

- 1. Click on the **Discuss** icon in the top button bar and enter the appropriate record number
- 2. Check the box in the Subscribe column for the thread to which you want to subscribe
- 3. Click **OK** to save this change



To unsubscribe from a discussion thread:

- 1. Click on the **Discuss** icon in the top button bar and enter the appropriate record number
- 2. Uncheck the box in the Subscribe column for the thread from which you want to unsubscribe
- 3. Click **OK** to save this change

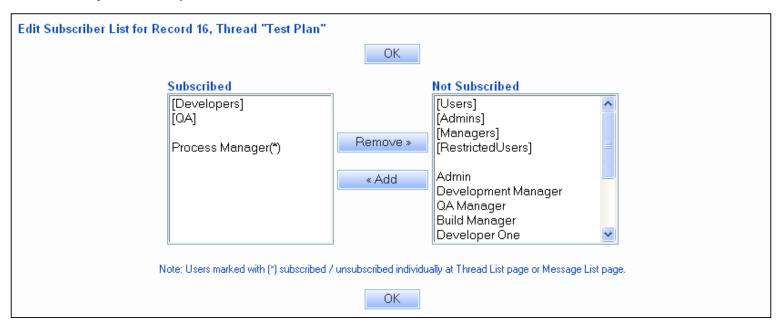
After unsubscribing from a discussion thread, you will no longer receive notification messages related to that thread. You can still access a discussion thread even if you are not subscribed to it.

Editing a Subscriber List

You can modify the list of users and user groups subscribed to a discussion thread. To do this:

- 1. Go to the Discussion section of a record by clicking on **Discuss** icon in the top button bar and entering the record number or by clicking on the Discuss icon for a record on the Query or Home page.
- 2. Click on a thread to view its contents
- 3. Click on the **Edit Subscriber List** button at the top of the page
- 4. To add a user or group to the Subscribed list, click on the user or group in the right column Not Subscribed, then click on the Add button.
- 5. To remove a user or group from the Subscribed list, click on the user or group in the left column Subscribed, then click on the Remove button.
- 6. Click **OK** to return to the thread's message list.

Any users in the **Subscribed** list that have "(*)" noted are users which manually subscribed to the thread by checking the **Subscribe** box on the Thread List or on the Message List pages.

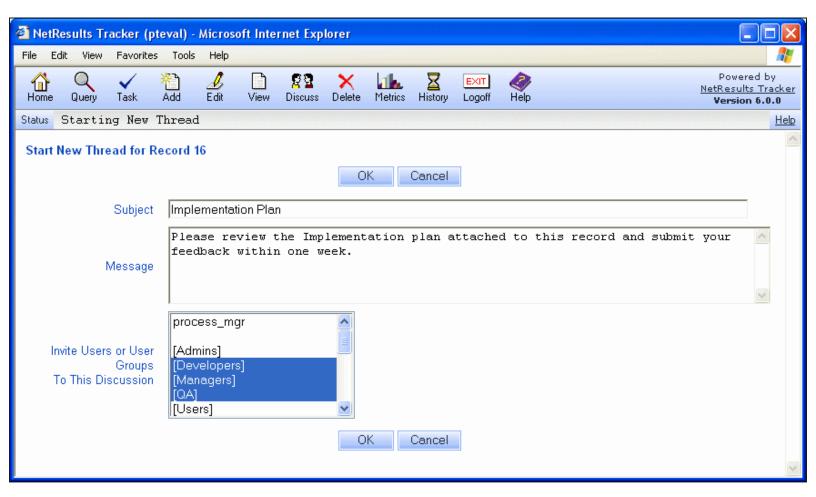


Initiating a Discussion

With sufficient user group privileges, you can start a discussion within a record. One way to start a discussion is on the Add page when creating a new record. The other way is to go to the Discussion section for a record.

Starting a Discussion via the Add page

To start a discussion when adding a record, enter the information in the fields on the Add form, then check the **Start Discussion** box at the bottom, then click on the **Add** or **Add & Copy** button. On the next page, enter the following information about the discussion thread you are creating:



• Subject
Enter some information to describe the topic of the new thread you are creating

Discussions (Enterprise Edition Only)

Message

Enter information that will appear in the first message posted to this thread. For example, you could describe in more detail the topic of the thread. You could also describe what contributions are expected from the users who participate in the discussion.

• Invite Users or Groups to Discussion

By default, when you initiate a discussion, you are subscribed to the discussion thread you are creating. You can unsubscribe yourself, by clicking on your User ID in the **Invite Users or Groups to Discussion** field so that your User ID is de-selected. Click on the users and / or user groups that should be invited to participate in the discussion thread you are creating. To select multiple users or groups, hold down the **CTRL** button on your keyboard while clicking on the users and groups. Users have the option to set their <u>Preferences</u> such that they will receive an email when they are invited to participate in a new discussion thread.

After entering the information above, click **OK** to create the new thread.

Starting a Discussion for a record after it has been added

To create a thread, click on the Discuss icon in the top button bar, then enter the number of the record for which you want to start a discussion and click OK.

If the record does not have any existing discussion threads, you will be prompted to enter the following information. If the record already has existing threads, you can add a new thread by clicking on the **Start New Thread** button, then entering the information below:

Subject

Enter some information to describe the topic of the new thread you are creating

Message

Enter information that will appear in the first message posted to this thread. For example, you could describe in more detail the topic of the thread. You could also describe what contributions are expected from the users who participate in the discussion.

• Invite Users or Groups to Discussion

Click on the users and / or user groups that should be invited to participate in the discussion thread you are creating. To select multiple users or groups, hold down the **CTRL** button on your keyboard while clicking on the users and groups. Users have the option to set their <u>Preferences</u> such that they will receive an email when they are invited to participate in a new discussion thread.

After entering the information above, click **OK** to create the new thread.

Viewing a Thread

When one or more threads have been created in a record, they will appear on the Thread List. To get to the thread list for a record, click on the **Discuss** icon in the top button bar and enter the number of the record you wish to see. You can also click on the Discuss icon next to a record from the reports on the Home or Query pages.

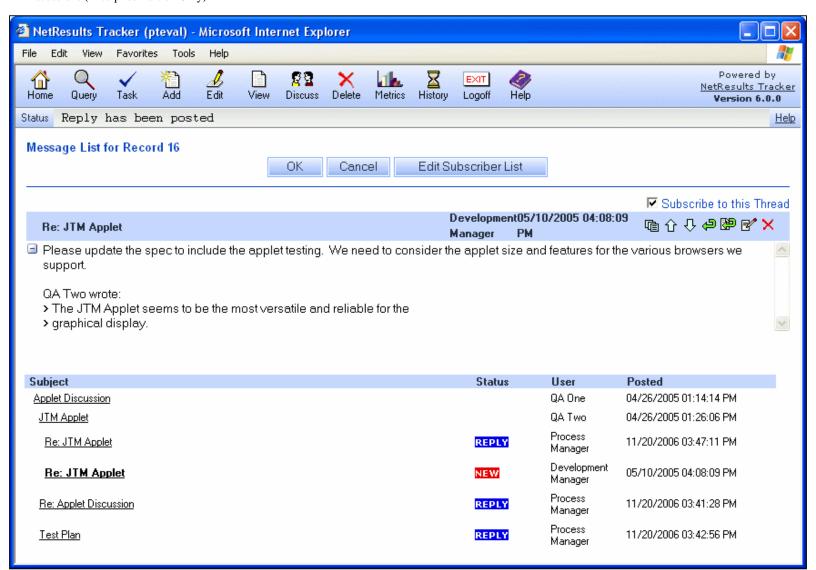
The Thread List for a record shows details about each thread such as the name of the thread, the user who started it, the number of messages, and the date and time of the last update. To view a thread, click on the name of a thread on the list.

If a thread has been updated since your last login, **UPDATED** will appear in the Status column of the thread list. This indicates that there are new message(s) to view in the thread.

Thread Structure and Operations

When viewing a thread, the top of the page will display the thread information. Below the thread information, a tree structure is displayed which lists all messages in the thread. The first entry in the tree structure is the thread information. Click on the subject of a message in the tree structure so its contents will be displayed at the top of the page. To change the number of lines of text you wish to see when first displaying a message, set the Message Display Window option in the Preferences page. Click on the "+" icon in the top left corner of the message contents to expand it to see all of its contents. Click on the "-" to collapse the contents of the field to the original window size.

There are 2 ways to sort the message list. By default, the messages are sorted in **thread order**, meaning the messages are organized in a tree structure with levels to indicate the hierarchy of each message. In this mode, the thread message is at the top level. Any reply to this thread message starts a new level (second level). Replies to messages at the second level start a new level (third level) and so on. The other way to sort the message list is in chronological, or **time order**. To change the sorting order, click on the order icon in the upper right corner of the message box. The image below displays a message list sorted in thread order.



When the thread order icon is displayed in the upper right corner of the message box, the message list is currently sorted in **time order**. Click on this icon to change the message list sort order to thread order.

When the time order icon is displayed in the upper right corner of the message box, the message list is currently sorted in **thread order**. Click on this icon to change the message list sort order to time order.

↑ ♣ ★ When viewing a message in the tree structure, you can use the up and down arrows in the upper right corner of the message to navigate through the tree structure.

If you have the appropriate privileges, you can view, edit, post, reply, or delete a thread and the messages it contains. The thread is the first message listed in the tree structure. If **NEW** is displayed in the Status column of a message on the list, this indicates that you have not viewed that message.

To reply to the thread, click on the reply icon in the upper right corner of the thread message box at the top. A reply to the thread is a message. The message you create with your reply will be listed one level under the thread in the tree structure. The message is indented to the right to show that it is at the next lower level to the thread. REPLY will be displayed in the Status column of your reply message in the message list.

To **reply** to the **thread** with the original thread information included, click on the reply with original thread icon in the upper right corner of the thread message box at the top. The content of the thread will appear in the Message section preceded by "<User Name> wrote:". Type your reply above the original thread content. The message you create with your reply will be listed one level under the thread in the tree structure. The message is indented to the right to show that it is at the next lower level to the thread. **REPLY** will be displayed in the Status column of your reply message in the message list.

To edit the thread, click on the edit icon in the upper right corner of the thread message box at the top.

When a message is viewed (by clicking on the message in the tree structure), the message content is displayed in the message box at the top.

To reply to a message, click on the reply icon in the upper right corner of the message box at the top. The message you create with your reply will be listed one level under the message to which you replied. The message is indented to the right to show that it is at the next lower level to the message (and two levels below the thread). REPLY will be displayed in the Status column of your reply message in the message list.

Discussions (Enterprise Edition Only)

To **reply** to a **message** with the original message content included, click on the reply with original message icon in the upper right corner of the message box at the top. The content of the original message will appear in the Message section preceded by "<User Name> wrote:". Type your reply above the original message content. The message you create with your reply will be listed one level under the message to which you replied. The message is indented to the right to show that it is at the next lower level to the message (and two levels below the thread). **REPLY** will be displayed in the Status column of your reply message in the message list.

To edit the message, click on the edit icon in the upper right corner of the message box at the top.

X To delete the message, click on the delete icon in the upper right corner of the message box at the top.

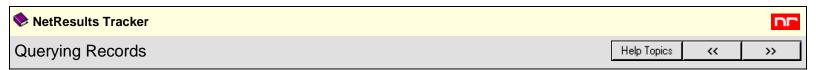
Discussion Information in Reports

The reports displayed on the Query and Home pages in Tracker can display the following icons related to discussions within a record.

f you have the appropriate privilege, you can click on this icon to view the discussion threads in a record in the query results.

f you have the appropriate privilege, you can click on this icon to view the discussion threads with new messages posted in a record in the query results.

You can also include whether a record contains a discussion to which you are subscribed as criteria in a saved query. The field **Discussion Subscription** on the Query page has "*", "Yes", and "No" as options. Selecting "Yes" will include records which contain discussion threads to which you are subscribed in the query results. Selecting "No" will exclude such records.

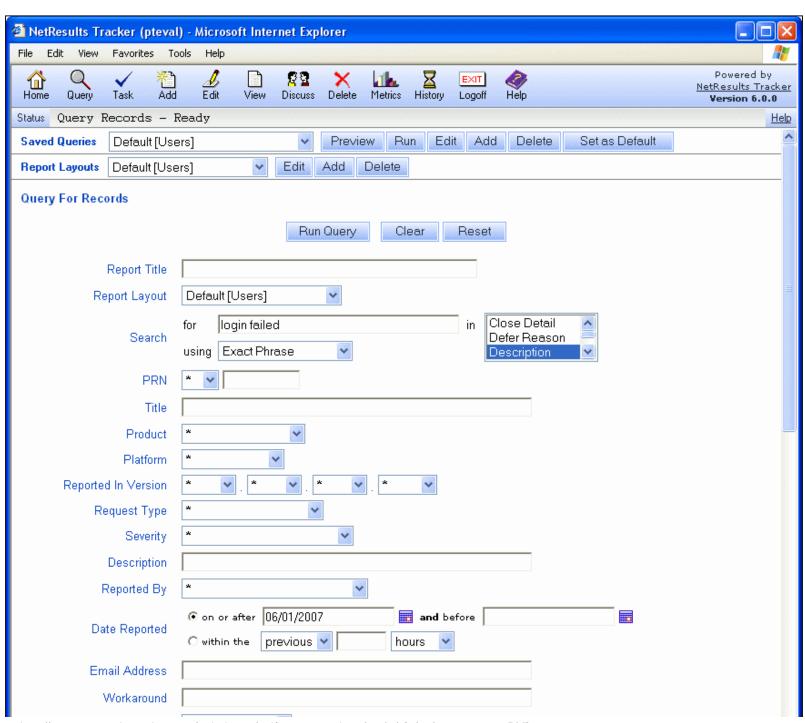




The Query page is the section where reports can be generated. You can generate ad-hoc reports, create and run saved reports, create report layouts to choose which fields will be displayed in report results as well as print, export and edit the report results.

The Query page has several sections, each section operates independently of the others (except for the Preview button in the Saved Queries bar which can be used on both saved and advanced saved queries):

- Saved Queries bar This allows you to create, edit and run saved reports. The functions of the Saved Queries bar are described in the <u>Using Saved Queries</u> & Reports section.
- Report Layouts bar This allows you to create and edit saved report layouts. The function of the Reports Layouts bar are also described in the <u>Using Saved</u> Queries & Reports section.
- Query for Records section This is where you can create and run ad-hoc reports. This Help section describes the functions of the Query for Records section.
- Advanced Query section The area where you can create, edit and run more complex saved reports. Advanced Query features are described in the <u>Advanced Query</u> section.





To run an ad-hoc query:

- 1. Click on the Query icon in the top button bar
- 2. Click on the Clear button in Query for Records section to clear out any previously selected query criteria
- 3. If you wish to have a title displayed for this report on the Query Results Page, enter a title in the Report Title field
- 4. Select a report layout in the **Report Layout** pulldown displayed in the Query dialog section (below the Run Query button). The report layout selected determines the fields that will be used in the columns of the report displaying the results of the query.
- 5. Select criteria for the ad-hoc query. You can combine any or all of the fields displayed to define a query. Each value is applied to the query as an **AND** clause, that is, the query will return all records that match all of the specified criteria. Review the <u>Selecting Query Criteria by Field Type</u> section for details about how to select criteria in the different field types as part of the ad-hoc query.
- 6. Below the fields where query criteria can be selected, you can use the **Sort By** and **Sort Order** options to select which fields to sort by, and choose Ascending or Descending as the sort order for the query results. Link and TextArea type fields cannot be selected for the **Sort By** options. Please note that when the preference Exclude Time From Reports is enabled and a Date field is selected in the Sort By section, the query results will be sorted by the time in each record even though the results will not include the time information. When PRN (Record ID) is selected for one of the Sort By fields, the records will be ordered according to the numeric component of the PRN (Record ID) field. The short name of the form will not be used as part of the sorting when PRN (Record ID) is selected. For example, let's say you have PRNs "REC1" and "REC2". The sorting will be done using "1" and "2", ignoring the "REC".
- 7. Click on the **Run Query** button to run the query
- 8. The records that matched the query criteria will be displayed. More detail on the results can be found in the Query Results section.

The Clear button in the Query for Records section can also be used to set the criteria such that the query will return all records. To run a query that returns all records:

- 1. Click on the Query icon in the top button bar
- 2. Click on the Clear button
- 3. Click on the Run Query button
- 4. The results page will display all records

A **Reset** button is available in the Query for Records section, allowing you to restore each query field to the values which were used in the last query that was run. This function is useful if you wish to use a previously executed query as a baseline for further queries.

Selecting Query Criteria by Field Type

Query criteria is entered or selected differently for the various field types available in Tracker.

Project

This field is only available if you have been given visibility to more than 1 project in Tracker. You can limit the query criteria to only those records that belong to a particular project(s) or select * to match any project. The selection made in this field will determine the options available in the **Form** field. To select multiple projects, hold down the **Ctrl** button on your keyboard while clicking on the projects to select them.

Form

This field is only available if you have been given visibility to more than 1 form in Tracker. You can limit the query criteria to only those records that were submitted using a particular form(s) or select * to match any form. The selection made in this field determines which fields are available for selecting query criteria. To select multiple forms, hold down the **Ctrl** button on your keyboard while clicking on the desired forms to select them. If you have selected one or more forms, a **Get Fields** button will be displayed. Click on the Get Fields button to refresh the page with the fields that belong to the forms you have selected.

Assigned To

You can select any active user or user group within the system or select * to match any user. User groups are denoted as [user group] within the pulldown.

Clone

You can select "Yes" to match only records that are clones of other records, or select "No" to match only records that are not clones of other records, or select * to match any records irrespective of whether it is a clone.

Date

Select a start date in the **On or After** field and, if desired, an end date in the **AND Before** field for the date period you wish to match. To match any value, leave the field blank. You can either type in the date(s) or click on the calendar icon to select a date. In the calendar, click on the < or > to move backward or forward one month. Click on the << or >> to move backward or forward one year. Click **Now** to set the date field to be the current date and time. Click on **Exclude Time** if you want to exclude the time information from being saved in the date field. For a field where the time information has previously been excluded, click **Set Time** if you wish to include the current time information in the field. Click **OK** to choose the highlighted date to be entered into the date field. Date will be selected and calendar dismissed when a date is clicked when the time is excluded. Dates displayed in red are non-business days according to the **Business Days** option in the **Preferences** section. Click **Cancel** to dismiss the calendar without saving changes.

Another option is to search within a relative date range (e.g. all records reported within the last 2 weeks or all records with a Due Date in the next 3 days). Select the

radio button to the left of the option called **within the**, select "previous" or "next", enter an integer to specify how many increments of time to include in the range and select the time increment desired (days, weeks, months or years). The results will be returned using the current date and time as the reference point. For example, if you run a query on June 15, 2006 12:20:00 PM that will return all records reported in the previous 2 days, the results will include all records that have a Date Reported between June 13, 2006 12:20:00 PM and June 15, 2006 12:20:00 PM.

Deleted

You can select "No" to include only records that are not marked as deleted, or select "Yes" to match only records that are marked as deleted, or select * to match any records irrespective of whether it is marked deleted.

Discussion Subscription

You can select "Yes" to return records that contain a discussion thread to which you are subscribed, or select "No" to return records that do not contain a discussion thread to which you are subscribed, or select * to return any records irrespective of whether it contains a discussion thread to which you are subscribed.

Float (Floating Point Number)

You can specify a value and one of the following conditions: <, <=, >, >= and =. To match any value, select the condition * and leave the value blank.

Integer

You can specify a value and one of the following conditions: <, <=, >, >= and =. To match any value, select the condition * and leave the value blank.

PKN

You can specify a value and one of the following conditions: <, <=, >, >= and =. To match any value, select the condition * and leave the value blank.

Pulldown

You can pick any particular value, or select * to match any value.

Release Number

You can pick any particular value, or select * to match any value in each of the 4 values for Release Number type fields.

Reported By

You can select any user or user group within the system or select * to match any user. User groups are denoted as [user group] within the pulldown.

Status

You can select any currently defined workflow state, or a State Group or select * to match any value. State Groups allow you to define collections of states to query against. For example, your Administrator could define a State Group named "Active" that includes all the states except for "Closed". Check with your Tracker Administrator for information about state groups that have been created in your workgroup.

Text or TextArea

You can enter a key word or phrase you wish to match in a Text or TextArea type field or leave blank to match any value. If you wish to search for a key word or phrase in multiple Text or TextArea fields, use the <u>Full Text Search</u> option.

You can enter a key word or string you wish to match in a URL type field or leave blank to match any value.

YesNo

URL

You can pick "Yes" or "No" or select * to match any value.

Full Text Search

A Full Text Search option is available in the sub-section called **Search** (below the Report Layout field) when running ad-hoc queries. To include a full text search as part of your query criteria, enter a key word(s) or phrase into the **for**. All Text and TextArea type fields that are active in the database will be displayed in the **in** field. Select the Text and TextArea fields that you want to include in the search for your key word(s) or phrase. Select the search method you wish to use in the **using** field. **Search Methods**

- All Words: The search will return all Knowledge Base articles which contain all of the words typed into the "Search Words" field.
- Any Word: The search will return all articles which contain any of the words typed into the "Search Words" field.
- Exact Phrase: The search will return all articles which contain the exact match for the string typed into the "Search Words" field.
- Boolean Expression: You can allow the use of Boolean operators such as "AND" and "OR". A + sign can be used as "AND". You can also use quotes to distinguish a string of words as one part of the Boolean expression.

Search Method Examples

Key Word(s) or Phrase for search entered in for field	Search Method	Results
access denied	Any Word	The search will return all records which contain the word "access" OR the word "denied".
access denied	All Words	The search will return all records which contain both "access" AND "denied".
access denied	Exact Phrase	The search will return all records which contain the string "access denied".
access OR denied	Boolean Expression	The search will return all records which contain the word "access" OR the word "denied".
access AND denied	Boolean Expression	The search will return all records which contain the word "access" AND the word "denied".

Dependent Pulldowns

In some cases, your Tracker Administrator may have configured dependent pulldowns in the system. A set of dependent pulldowns is a pair of pulldown menus where one pulldown is the child pulldown field and the other is the parent pulldown field. The option menu items that are displayed in the child pulldown field are determined by the option menu item that is selected for the parent pulldown field. A simple example to illustrate this functionality:

A system has a pulldown called Product with two option menu items "Our Computer" and "Our Printer". A pulldown called Component has the option menu items "Hard Drive", "Video Card", "Toner", and "Paper Tray". The components "Hard Drive" and "Video Card" correspond to the "Our Computer" option menu item in the Product pulldown field. The components "Toner" and "Paper Tray" correspond to the "Our Printer" option menu item in the Product field. When a user selects "Our Computer" for the Product field, only the options "Hard Drive" and "Video Card" will be displayed in the Component field. The Component pulldown (child) is dependent on the Product pulldown (parent).

By default, these relationships between pulldown fields are not enforced when running queries. If you would like these dependencies between pulldown fields to be enforced when you perform queries (including the queries that display your home page reports), change the setting **Enforce Dependency in Query Page** to be set to Yes in the **Preferences** section. To do this,

- 1. Login to the workgroup
- 2. On the Home Page, click on the Preferences link
- 3. Scroll down to the "Query Page Pulldown Settings" section. Check the box for the setting Enforce Dependencies
- 4. Click **OK** to save this change.

Obsolete Items

In some cases, your Tracker Administrator may mark some option menu items as obsolete. An obsolete option menu item is a value in a pulldown field that cannot be selected for new records, but may be contained in existing records. When running queries, you may wish to search using obsolete items. If you would like for obsolete option menu items to be available to be used as part of search criteria on the Query Page:

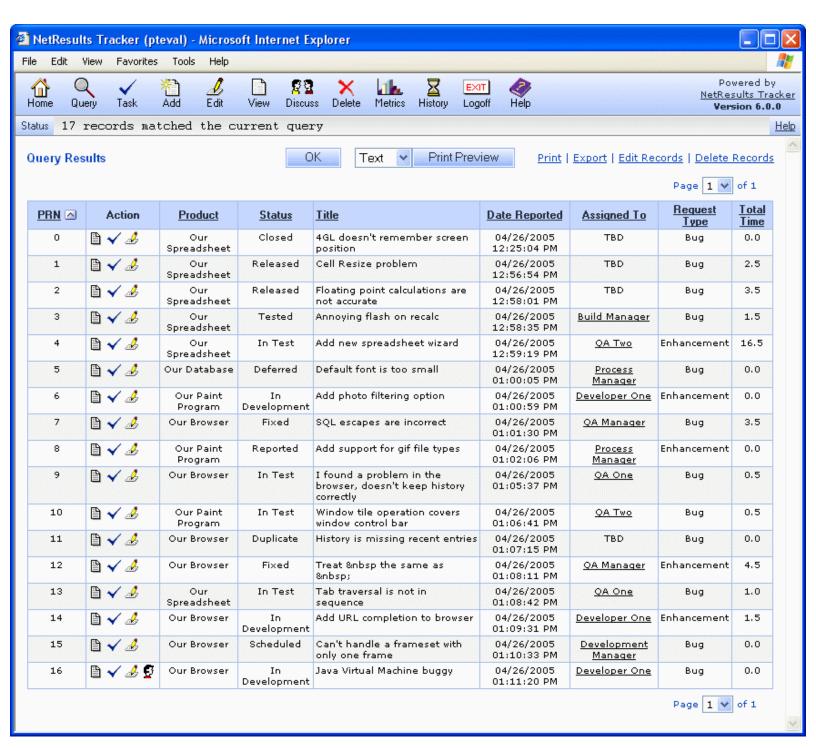
- 1. Login to the workgroup
- 2. On the Home Page, click on the **Preferences** link
- 3. Scroll down to the "Query Page Pulldown Settings" section. Check the box for the setting Include Obsolete Items
- 4. Click **OK** to save this change.

Examples of Queries

Goal	Procedure
Find all records assigned to "Robert Frank".	Click on the Clear button. Set the "Assigned To" field to "Robert Frank" and click on the Run Query button.
Find all records for the product "Big Widget" that need to be assigned for testing.	Click on the Clear button. Set the "Product" field to "Big Widget" and the "Status" field to "Fixed" and click on the Run Query button.
Locate a record related to random program crashes.	Click on the Clear button. Enter "random crash" in the "Description" field and click on the Run Query button.
Locate all records with the word "print" in the Description.	Click on the Clear button. Enter "print" in the "Description" field and click on the Run Query button.

Query Results

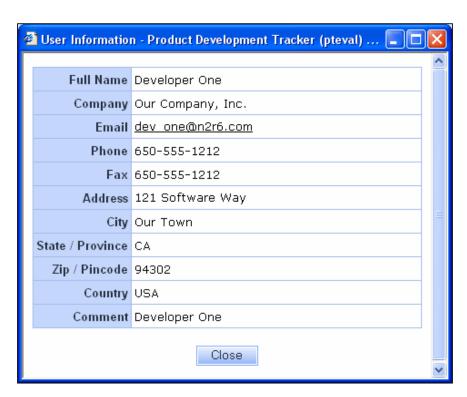
Once you have run a query, you can view, task, edit or view discussion threads to which you are subscribed for any of the records listed in the query results. You can change the sort order of the Query results at any time by clicking on the field name of the column you wish to sort by. The initial sort order is based on the selections made in the **Sort By** options of the Query for Records section or in the saved query. The field that is being used as the primary sort field will have an arrow to the right of the field name. If the arrow is pointing down, the results are sorted by that field in a descending order. If the arrow is pointing up, the results are sorted by that field in an ascending order. Clicking once on the field with the arrow will reverse the sort order. Clicking once on any field that does not have the arrow will sort the results in ascending order by that field. Any field except Link and TextArea type fields can be clicked to sort the results by that field. Please note that when the preference Exclude Time From Reports is enabled and a Date field is selected in the Sort By section, the report results will be sorted by the time in each record even though the report will not display the time information. When PRN (Record ID) is selected for one of the Sort By fields, the records will be ordered according to the numeric component of the PRN (Record ID) field. The short name of the form will not be used as part of the sorting when PRN (Record ID) is selected. For example, let's say you have PRNs "REC1" and "REC2". The sorting will be done using "1" and "2", ignoring the "REC".



The number of query results displayed per page is based on the value of the field **Maximum Records** in the Report Settings section of your <u>Preferences</u> page. By default, this is set to display 20 records per page.

Use the next page and previous page icons to navigate through the query results or use the page pulldown to go directly to a specific page number.

When the "Assigned To" or "Reported By" fields are displayed in the query results and if you have the privilege that allows you to see user profile information, you can click on the user's name to display their profile details as shown below.



- If you have the appropriate privilege, you can click on this icon to view a record in the query results.
- If you have the appropriate privilege, you can click on this icon to task a record in the query results.
- If you have the appropriate privilege, you can click on this icon to edit the fields, attachments or source code list in a record in the query results.

If you have the appropriate privilege, you can click on this icon to view the discussion threads to which you are subscribed within a record in the query results.

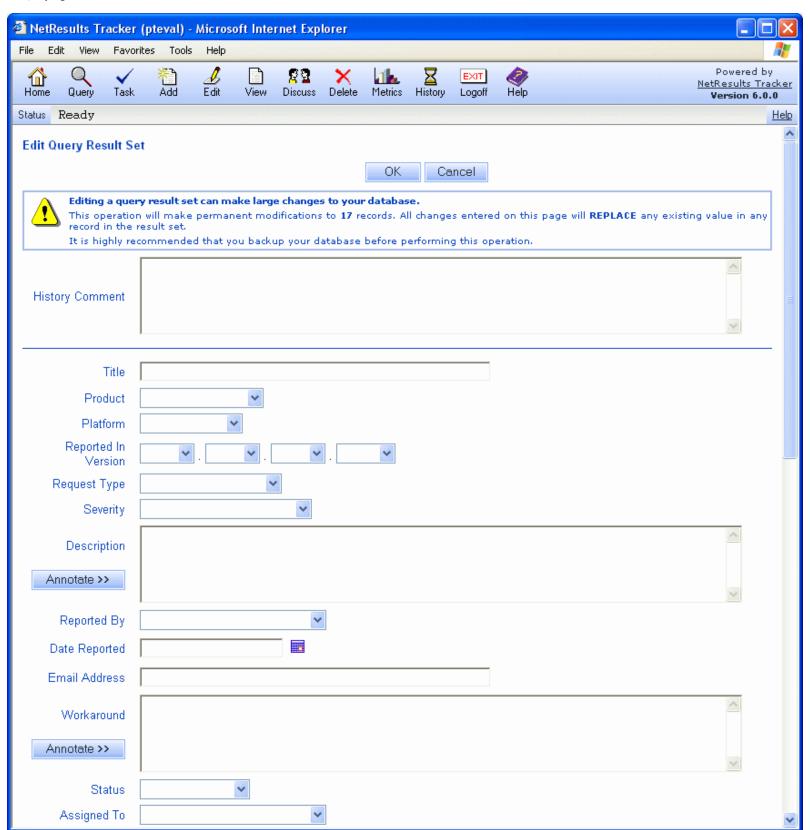
🚰 If you have the appropriate privilege, you can click on this icon to view the discussion threads to which you are subscribed with new messages posted within a record in the query results.

The query results can be formatted for printing as a table or text (text will display the full contents of all fields, table format may truncate long fields based on the settings in the Report Layout you used). To print the guery results, select "Text" or "Table" and click on the Print link in the upper right corner of the Query Page. If you wish to see a preview before printing, select "Text" or "Table", then click on the Print Preview button. Please note that when the preference Exclude Time From Reports is enabled and a Date field is displayed in the report layout, the time information will not be included (only the date) when print previewing or printing the query results.

The query results can be exported to a *.CSV file (comma separated values format) by clicking on the ,b>Export link in the upper right corner of the Query Results page. Please note that when the preference Exclude Time From Reports is enabled and a Date field is displayed in the report layout, the time information will not be included (only the date) when exporting the guery results.

Editing or Deleting a Set of Query Results

If you have the appropriate privilege, you may also have the option to edit the set of guery results displayed using the Edit Records link in the upper right corner of the Query Results page. The Edit Records option allows you to make changes to all of the records that matched your query in a single edit operation. Please note that using the Edit Records options can make large changes to your database and cannot be undone. By default, this option is only available to the Admin user. To use this operation after running a query, on the page where the query results are displayed, click on the Edit Records link in the upper right corner of the page. The Edit Records link will only be available when one Project and one Form are selected in the guery criteria (if you only have access to one Project and one Form, these fields won't be displayed in the criteria and the Edit Records link will be available if you have the appropriate user group privilege). The Edit Records page (also known as the Edit Query Result Set page) will display the fields active in the database. Make changes to the fields you desire, then click OK. Click OK once again to confirm that this will change multiple records and cannot be undone. The image below shows the Edit Records page.



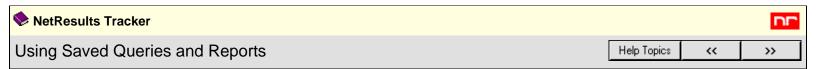
The Edit Records operation can also be used to set the Alerts settings for multiple records that matched your query in a single edit operation. If you wish to delete the alerts settings for all records in the query results, select **Delete** in the Alerts field at the bottom of the page. If you wish to modify the alerts settings for all records in the query results, select **Modify...** in the Alerts field at the bottom of the page. Please note that the **Modify...** option will only be available if the query results are limited to those records that belong to a single form. When the results include records from multiple forms, the **Modify...** option will not be available. When selecting Modify..., another page will be displayed where the alerts settings can be changed. To change a particular setting, click on the check box next to the setting as shown in the example below. Modify the alerts settings you wish to change, then click **OK** to save the changes for all records in the query results.

You can change the record visibility for a set of records using the Edit Records operation. A list of user groups will be displayed in the field **Make Visible to These User Groups**. If a user group(s) is selected during the Edit Records operation, the records in the query results will be set such that they are visible only to the user group(s) selected. To make a set of records visible to only the Admins user group, click on the blank space at the bottom of the list in the Make Visible to These User

Querying Records

Groups field. Changing the visibility for a set of records will eliminate the visibility settings previously in effect for these records.

If you have the appropriate privileges and your system has been configured to use "hard" deletes (deletes which permanently purge records from the database), then you may see a **Delete Records** link in the upper right corner of the query results page. Clicking this link will (after asking for a final confirmation), permanently delete all records that matched the query you just ran. However, entries will be made to Record History for all records deleted in this manner. By default, Tracker is configured to perform only "soft" (recoverable) deletes and only the Administrator is able to perform the Delete Records operation (it requires the same privilege as Edit Records).



Overview

A Tracker report is composed of the search criteria, which is called a **query**, and a format for the results (which determines which fields are displayed in the results and other options), which is called a **report layout**. You can define and save both queries and report layouts. This enables you to quickly select from a list of frequently used queries, rather than re-entering all the query parameters for each query. You can use either group or personal saved queries. You can always save a personal query, and if you have been given permission by your Administrator, you may also be able to save a query or report layout for use by all users in your assigned user group(s).

Saved queries are managed by the Saved Query bar which appears on the Query Page below the status bar, as shown below:



Using the Saved Query bar, you can define new queries, edit or remove existing saved queries, run or preview a saved query and set a default saved query. Group level saved queries are listed followed by the User Group name in square brackets (e.g. "Assigned to Me [Users]" denotes the saved report called "Assigned to Me" is accessible by the user group "Users"). Admin users can access saved queries for all user groups without having to be a member of each group.

Saved report layouts are managed by the Report Layouts bar which also appears on the Query Page below the status bar, as shown below:



Using the Saved Reports bar, you can define new report formats, and edit or remove existing saved report formats. Group level saved report formats are listed followed by the User Group name in square brackets. Admin users can access saved reports for all user groups without having to be a member of each group.

If a user group is not available for selection, you may not be a member of the user group or you may not have sufficient privileges for saving reports or report layouts for that user group. If you are a member of the user group or are logged in as a user with the Admin privilege, the user group may not have visibility to at least one Project and Form. Only user groups that have visibility to at least one Project and Form (configured in the Admin section) will be available for selection when creating group saved queries, advanced queries or report layouts.

Restrictions Related to Adding Saved Queries and Report Layouts

In order to create a saved query or report layout for a user group, a user must have the necessary privileges as defined by your Tracker Administrator. Without these privileges, a user can only create personal saved queries and report layouts.

Depending on the user group privileges that have been assigned to your by your Tracker Administrator, you may only be able to use certain operations on certain saved group reports or report layouts. For example, if you are a member of 2 user groups, but only have privileges to edit group saved reports or report layouts for one of those user groups, some of the operations in the Saved Queries or Report Layouts bar (e.g. "Add", "Edit") may be disabled when selecting a saved query or report layout for a group where you have limited privileges.

Field Visibility in Saved Group Queries and Reports

Field Visibility is the feature that allows fields to be restricted by user group in various areas of Tracker such as the Add, Edit, and View pages and in Queries and Reports. That is to say that the system can be configured such that each user group may see a different set of fields in each area of Tracker. Therefore, when creating saved group queries and report layouts, all fields may not be displayed depending on field visibility settings for the group selected.

When a field is not visible to the user group selected in a saved group query, the field will be set to the default value when the saved group query is run. In most cases, this default value is "*", which will include all possible values for the field in the saved group query results. In the case of the Deleted field, the default is "No" such that all records that have not been marked as deleted will be included in the results of the saved group query.

In the case of report layouts, if the field is not visible to the group selected for the saved group report layout, the field will not appear in the list of possible values for each column of the report.

Please contact your Tracker Administrator if you wish to include a field in a saved group query or report layout that is not visible to the selected user group.

Saved Queries and Report Layouts using Multiple Forms

Saved Queries and Report Layouts with multiple forms selected can have fields selected in the criteria that are not available in all forms (the field does not exist in certain forms) or are not visible to all user groups who are able to run that saved query or report layout. When this occurs, the criteria that does not apply to a certain form will not match any records for that form. For example, let's say there are 2 forms in a workgroup: Form A and Form B. There is a query with Form = "*" (records that match either Form A or Form B) and "Priority = 1", but Priority is not visible in Form A. Since Priority is not visible in Form A, no records added using

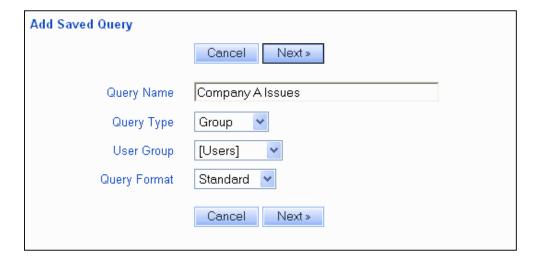
Form A will be included in the query results (because there are no records added using Form A that have the Priority field set).

The same is true for report layouts. This means that if a field is not visible or does not exist in a form, no value will be displayed in that field's column for records where the field is not visible or does not exist. Using a similar example the one above for query results (query with Form = "*", which will return records that match either Form A or Form B, Priority is not visible in Form A). The report layout we are using with this query has a column with "Priority" selected. In the query results any records added using Form A will have a blank value in the Priority column.

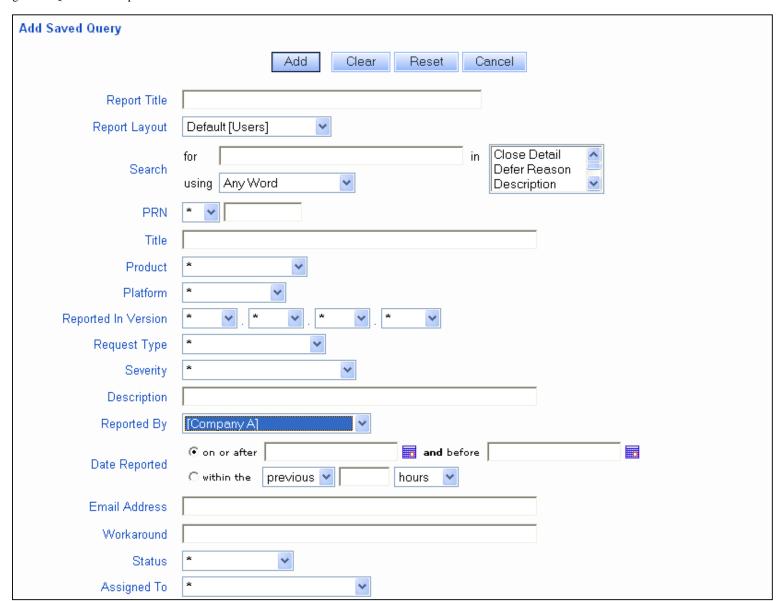
Add a Saved Query

To **add** a saved query, follow these steps:

- 1. Login to the workgroup
- 2. Click on the Query icon in the Button bar
- 3. Click on the Add button to the right of the Saved Queries pulldown. **Note:** to create a Saved Query that is similar to an existing Saved Query, select the existing saved query in the pulldown menu to the left before clicking the Add button.



- 4. Enter a name for the saved query in the **Query Name** field (this is the name that you will use to retrieve the query)
- 5. In the **Query Type** field, select whether this is a "Personal" (to create a saved query that will be accessible only to you) or "Group" (to create a saved query that will accessible to members of a particular user group) saved query.
- 6. If you selected "Group" as the Query Type, select a user group in the **User Group** field to which this saved query should be visible. You will only be able to select the user groups in which you are a member (however, the Tracker Administrator can add saved queries for any user group).
- 7. Select "Standard" as the Query Format and click Next to proceed



- 8. The text in **Report Title** will be displayed at the top of the Query Results page. By default, the **Query Name** selected above will be entered as the Report Title. Change the Report Title, if desired.
- 9. Select a Report Layout to choose which fields will be displayed in the query results
- 10. Enter the criteria for the query as you would for an ad-hoc query
- 11. In the **Sort By** section, select the fields and the sort order ("Ascending" or "Descending") that will be used to display the query results. Link and TextArea type fields cannot be selected in the **Sort By** options.
- 12. Click on the Add button to save the query

Run a Saved Query

To run a saved query, follow these steps:

- 1. Login to the workgroup
- 2. Click on the Query icon in the Button bar
- 3. In the Saved Queries pulldown at the top of the page, select the saved query you wish to run
- 4. Click on the **Run** button to the right of the Saved Queries pulldown

Preview a Saved Query

Many times you may wish to verify the criteria of a saved query before running it or perhaps modify it slightly before running it. The Tracker saved query Preview feature allows you to do this.

To preview, optionally modify, and run a saved query, follow these steps:

1. Login to the workgroup

Using Saved Queries and Reports

- 2. Click on the Query icon in the Button bar
- 3. In the Saved Queries pulldown at the top of the page, select the saved query you wish to preview
- 4. Click on the **Preview** button to the right of the Saved Queries pulldown
- 5. The criteria and other parameters for the saved query appear in the query dialog below. Modify the query criteria or parameters if desired.
- 6. Click on the Run Query button in the query dialog to run the query

Select a Default Saved Query in the Saved Queries Pulldown

To set the query which you would like to appear in the Saved Queries pulldown when you first browse to the Query page, follow these steps:

- 1. Login to the workgroup
- 2. Click on the **Query** icon in the Button bar
- 3. In the Saved Queries pulldown at the top of the page, select the saved query you wish to save as the default
- 4. Click on the **Set as Default** button to the right of the Saved Queries pulldown. The page will be refreshed and the Status will say "Default Query has been updated.".

Edit a Saved Query

To edit a saved query, follow these steps:

- 1. Login to the workgroup
- 2. Click on the Query icon in the Button bar
- 3. In the Saved Queries pulldown at the top of the page, select the saved query you wish to edit
- 4. Click on the Edit button to the right of the Saved Queries pulldown.
- 5. A page containing the current query criteria and other parameters is displayed. Edit the query criteria or parameters as desired.
- Click on the **OK** button to save your updates.

Delete a Saved Query

To **delete** a saved query, follow these steps:

- 1. Login to the workgroup
- 2. Click on the Query icon in the Button bar
- 3. In the Saved Queries pulldown at the top of the page, select the saved query you wish to delete
- 4. Click on the **Delete** button to the right of the Saved Queries pulldown

If a user has the saved query you are attempting to delete selected as one of their default Home Page reports, you will not be able to delete the saved query until another report is selected for the user's default Home Page reports in the <u>Preferences</u> section.

Standard Saved Queries within Tracker

Within Tracker, there are saved queries that are installed by default. The description of each report below is how the saved queries are set by default, but your Tracker Administrator or another user with the appropriate privileges may have changed the report's settings:

Default [Users]

A saved query for the Users group that will display all records within Tracker.

Assigned to Me [Users]

A saved query for the Users group that will display all records assigned to the user who is currently logged into Tracker. By default, this query is selected as the First Home Page Report in the Preferences page for all non-Restricted users. Please review the <u>Preferences</u> section for more information about selecting a saved query for the First Home Page Report.

• Reported By Me [Users]

A saved query for the Users group that will display all records reported by the user who is currently logged into Tracker. By default, this query is selected as the Second Home Page Report in the Preferences page for all non-Restricted users. Please review the Preferences section for more information about selecting a saved query for the Second Home Page Report.

• Added By Me [RestrictedUsers]

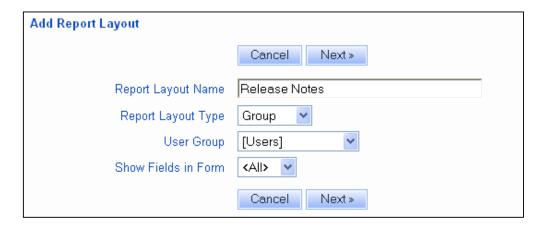
A saved query for the RestrictedUsers group that will display all records reported by the restricted user who is currently logged into Tracker. By default, this query is selected as the First Home Page Report in the Preferences page for all Restricted users. Please review the <u>Preferences</u> section for more information about selecting a saved query for the First Home Page Report.

Saved Report Layouts

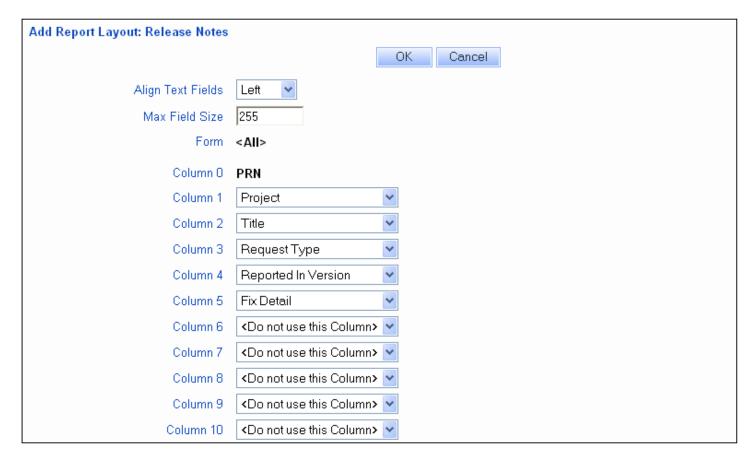
Report Layouts determine which fields will be displayed in the query results. You can create as many report layouts as desired. Report Layouts can be created for personal use or for use by user groups. When running an ad-hoc query and when saving queries, you can choose which report layout should be used to display the query results.

To add a report layout, follow these steps:

- 1. Login to the workgroup
- 2. Click on the Query icon in the Button bar
- 3. Click on the Add button to the right of the Report Layouts pulldown



4. Select the Report Layout Type. If it's a group report layout, select a group to which this report layout should be visible. You will only be able to select the user groups in which you are a member (however, the Tracker Administrator can add saved report layouts for any user group). Select the form which contains the fields you want to choose from to build the report layout or select "<All>" to list all fields irrespective of the form in the Show Fields in Form field. If you only have access to one form, the Show Fields in Form field will not be available. Click Next to proceed.



- 5. In the form that appears, enter a report name (this is the name that you will use to select the report layout) in the Report Layout Name field
- 6. Select how to align text fields (left, center, right)
- Select the maximum size for text fields
- 8. Select the fields you would like displayed
- 9. Click on the **OK** button

Properties of Fields Selected for Report Layout Columns

Any of the active fields for the form selected (or all if "<All>" was selected) can be selected as columns in a report layout. Some field types have special properties when included in a report layout.

When the **Assigned To** or **Reported By** fields appear in a report layout, users with the privilege "View User Information" will be able to click on the user's name in the query results to display the user's profile information (e.g. phone number, email address, company name).

When the preference Exclude Time From Reports is enabled and a **Date** field is included in a report layout, only the date information (not the time) will be included in the query results.

Selecting a **Link** field as a column in a report layout will display the PRNs of any linked records. The PRN for the linked records is a clickable link that will display the View Page of that record.

Selecting **<Attachments>** as a column in a report layout will display the description of any attachments for the record. The description is a link that can be clicked to view the attachment in a separate browser window.

Selecting <Clone> as a column in a report layout will display "Yes" if a record is a clone or "No" if a record is not a clone.

Selecting **<Parent PRN>** as a column in a report layout will display the PRN of the record it was cloned from (the parent record). For records that are not clones, this column will display the value "-1" to signify the record does not have a parent.

Edit a Saved Report Layout

To edit a saved report layout, follow these steps:

- 1. Login to the workgroup
- 2. Click on the Query icon in the Button bar
- 3. In the Report Layouts pulldown, select the report layout you wish to edit
- 4. Click on the **Edit** button to the right of the Report Layouts pulldown
- 5. A page containing the current layout is displayed. Edit the layout as desired.
- 6. Click on the **OK** button to save your updates

Delete a Saved Report Layout

To delete a saved report layout, follow these steps:

- 1. Login to the workgroup
- 2. Click on the Query icon in the Button bar
- 3. In the Report Layouts pulldown, select the report layout you wish to delete
- 4. Click on the **Delete** button to the right of the Report Layouts pulldown

Select a Saved Report Layout in an Ad-hoc Query

To **run** an ad-hoc query using a particular report layout, follow these steps:

- 1. Login to the workgroup
- 2. Click on the Query icon in the Button bar
- 3. Enter the query directly or start with an existing saved query by selecting it in the Saved Queries pulldown, then clicking on the Preview button.
- 4. Select the report layout wish to use in the Report Layout pulldown in the Query dialog section (below the Run Query button)
- 5. Click on the Run Query button

Associate a Saved Report Layout to a Saved Query

To associate a saved report layout to a saved query, follow these steps:

- 1. Login to the workgroup
- 2. Click on the Query icon in the Button bar
- 3. Select the saved query in the Saved Queries pulldown, then click on the Edit button to the right of the Saved Queries pulldown.
- 4. In the Report Layout pulldown, select the desired saved report layout.
- 5. Click on the **OK** button to save the change

Standard Saved Report Layouts within Tracker

Within Tracker, there are saved report layouts that are installed by default. The description of each report layout below is how each is set by default, but your Tracker Administrator or another user with the appropriate privileges may have changed the report layout's settings::

Default [Users]

A saved report layout for the Users group that will display the fields PRN, Product, and Status in a report. The saved query Default [Users] uses this report

layout by default.

• Home Report1 [Users]

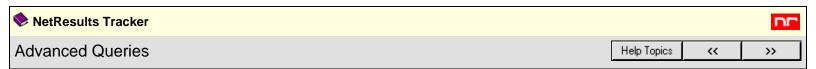
A saved report layout for the Users group that will display the fields PRN, Product, Title, Reported By, Status, Request Type, Priority, and Description within a report. By default, this report layout is used by the saved query "Assigned To Me [Users]".

• Home Report2 [Users]

A saved report layout for the Users group that will display the fields PRN, Product, Title, Assigned To, Status, Date Reported, Reported in Version, Request Type, and Released in Version within a report. By default, this report layout is used by the saved query "Reported By Me [Users]".

• Added By Me [RestrictedUsers]

A saved report for the RestrictedUsers group that will display the fields PRN, Product, Title, Status, and Date Reported within a report. By default, this report layout is used by the saved query "Added By Me [RestrictedUsers]"



Overview

The Advanced Queries function allows you to build more intricate queries using operators such as AND, OR, and NOT, multiple selection of values to match, and grouping (parentheses) of query criteria to generate more refined results. You can define and save advanced queries, enabling you to quickly select from a list of frequently used advanced queries, rather than re-entering the numerous query parameters that compose this type of query. You can use either group or personal advanced queries. You can always save a personal advanced query, and if you have been given permission by your Administrator, you may also be able to save an advanced query for use by all users in a user group.

Advanced queries are managed by the Saved Queries bar which appears on the Query Page below the status bar.



Using the Saved Queries bar, you can define new advanced queries, edit or remove existing advanced queries, and run or preview an advanced query. Group level advanced queries are listed followed by the User Group name in square brackets (e.g. "Assigned to Me [Users]" denotes the saved report called "Assigned to Me" is accessible by the user group "Users"). Admin users can access advanced saved queries for all user groups without having to be a member of each group. If a user group is not available for selection, you may not be a member of the user group. If you are a member of the user group or are logged in as a user with the Admin privilege, the user group may not have visibility to at least one Project and Form. Only user groups that have visibility to at least one Project and Form (configured in the Admin section) will be available for selection when creating group advanced saved queries.

Field Visibility in Advanced Saved Group Queries

Field Visibility is the feature that allows fields to be restricted by user group in various areas of Tracker such as the Add, Edit, and View Pages and in reports on the Query and Home Pages. That is to say that the system can be configured such that each user group may see a different set of fields in each area of Tracker. Therefore, when creating advanced saved group queries, all fields may not be displayed depending on field visibility settings for the group selected.

When a field is not visible to the user group selected in a advanced saved group query, the field will be set to the default value when the advanced saved group query is run. In most cases, this default value is "*", which will include all possible values for the field in the advanced saved group query results. In the case of the Deleted field, the default is "No" such that all records that have not been marked as deleted will be included in the advanced saved group query results.

If a personal or group advanced saved query was created before a field was made invisible to a user group, it is possible for this user group to see an invisible field in a clause in the "Query Phrase" section of the advanced saved query. Any clause containing a field that is now invisible to the user group will be "read only". This clause cannot be edited because it contains a field that has been restricted for the user group. However, the clause can be deleted from the advanced saved query.

Please contact your Tracker administrator if you wish to include a field in an advanced saved group query that is not visible to the selected user group.

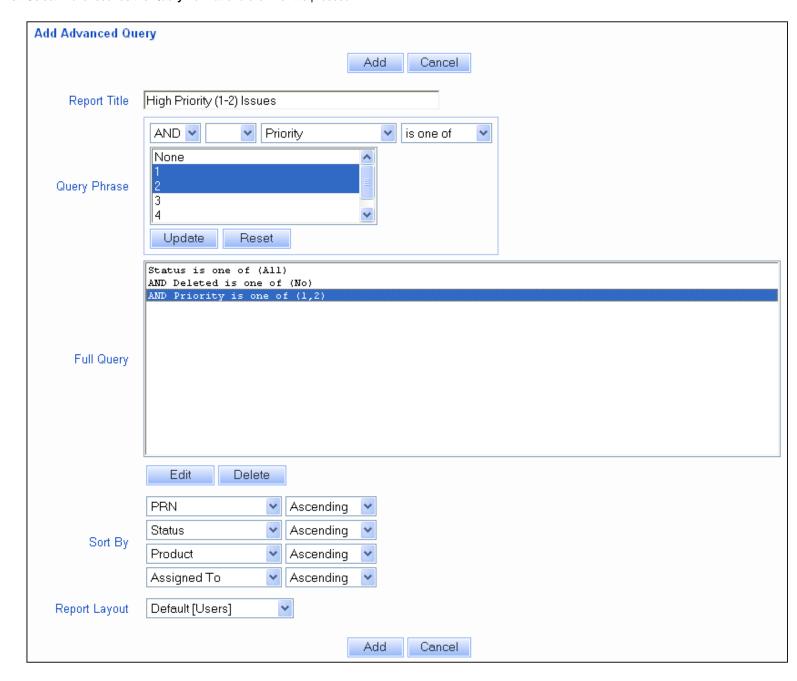
Define an Advanced Saved Query

To define an advanced saved query, follow these steps:

- 1. To start, select a query from the **Saved Queries** pulldown menu that will be used as the starting point (template) for the new saved query. To start with a basic saved query, select the saved query "Default [Users]".
- 2. Click on the Add button on the Saved Queries bar



- 3. In the form that appears, enter a query name (this is the name that you will use to retrieve the query) in the Query Name field.
- 4. In the **Query Type** field, select whether this is a "Personal" (to create a saved query that will only be accessible by you) or "Group" (to create a saved query that will be accessible to members of a particular user group) saved query.
- 5. If you selected "Group" for Query Type, select a user group in the **User Group** field to which this saved query should be visible. You will only be able to select the user groups in which you are a member (However, the Tracker Administrator can add advanced saved queries for all user groups).
- 6. Select "Advanced" as the Query Format and click Next to proceed



- 7. The text in **Report Title** will be displayed at the top of the Query Results page. By default, the **Query Name** selected above will be entered as the Report Title. Change the Report Title, if desired.
- 8. Make a selection in the **Project** field:
 - This field is only available if you have been given visibility to more than 1 project in Tracker. You can limit the query criteria to only those records that belong to a particular project(s) or select * to match any project. The selection made in this field will determine the options available in the **Form** field. To select multiple projects, hold down the **Ctrl** button on your keyboard while clicking on the projects to select them.
- 9. Make a selection in the **Form** field:
 - This field is only available if you have been given visibility to more than 1 form in Tracker. You can limit the query criteria to only those records that were submitted using a particular form(s) or select * to match any form. The selection made in this field determines which fields are available for selecting query criteria. To select multiple forms, hold down the **Ctrl** button on your keyboard while clicking on the desired forms to select them. If you have selected one or more forms, a **Get Fields** button will be displayed. Click on the Get Fields button to refresh the page with the fields that belong to the forms you have selected.
- 10. Phrases will be displayed in the **Full Query** section based on the saved query you selected in the Saved Queries pulldown before clicking on the Add button. To edit or delete an existing phrase, click on the phrase, then click on the **Edit** or **Delete** button above the Full Query section. Build query phrases by making selections in the **Query Phrase** box according to the information in the <u>Query Phrases</u> section. If you are creating/editing the first query phrase, "(blank)" must be selected for the first field of the first row of the Query Phrase section.
- 11. Select values for the rest of the fields in the first row

- 12. If applicable, enter information in the rows 2, 3, or 4. To select multiple values in row 3, hold down the CTRL button on your keyboard while clicking on each value you wish to select.
- 13. Click on the Insert button to add the first query phrase or insert a guery phrase into the Full Query section
- 14. Click on the **Reset** button to clear the Query Phrase section, then construct the next query phrase
- 15. Repeat the above steps until you have inserted all of the query phrases you wish to include
- 16. If desired, choose fields and order in the **Sort By** section to sort the query results. Select which fields to sort by and choose "Ascending" or "Descending" as the sort order for the selected fields for the query results. The Sort By and Sort Order selection are at the bottom of the Advanced Query page. Link and TextArea type fields cannot be selected in the **Sort By** options. Please note that when the preference Exclude Time From Reports is enabled and a Date field is selected in the Sort By section, the query results will be sorted by the time in each record even though the results will not include the time information. When PRN (Record ID) is selected for one of the Sort By fields, the records will be ordered according to the numeric component of the PRN (Record ID) field. The short name of the form will not be used as part of the sorting when PRN (Record ID) is selected. For example, let's say you have PRNs "REC1" and "REC2". The sorting will be done using "1" and "2", ignoring the "REC".
- 17. If desired, select a report layout in the **Report Layout** pulldown menu. The report layout selected determines which fields will be displayed as the columns in the query results. More information on Report Layouts can be found in the <u>Using Saved Queries and Reports</u> section.
- 18. Click on the **Add** button to save your advanced query

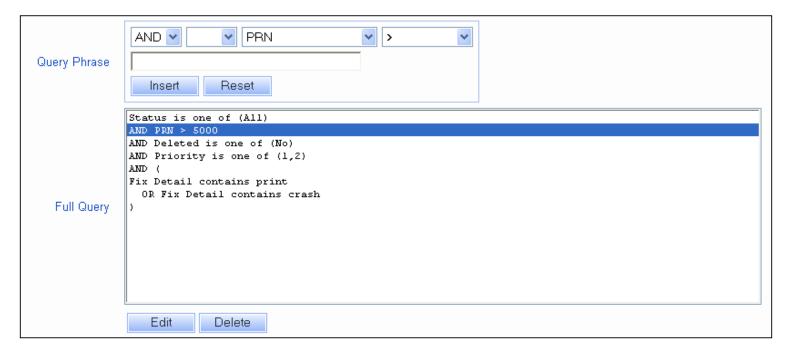
Run an Advanced Query

To run an advanced query, follow these steps:

- 1. Click on the pulldown menu in the Saved Queries bar and select the desired advanced query from the list of options
- 2. Click on the $\mbox{\bf Run}$ button to the right of the Saved Queries pulldown

Building Query Phrases

The procedure for building an advanced query differs from a standard query in that multiple options for each field can be selected and / or excluded for advanced queries. This is done by composing various query phrases that will be combined to generate the query results. These phrases are constructed in the Query Phrase section of the Advanced Query page.



Logic operators and fields are selected for a query phrase in the first row of the Query Phrase section. A description of the fields in the first row of the Query Phrase section:

- 1. The first field is a pulldown that contains the operators "AND", "OR", and "(blank)". For the first phrase of an advanced query, "(blank)" is the only possible option for this first field.
- 2. The second field is a pulldown that contains the operators "NOT" and "(blank)".
- 3. The third field is a pulldown menu that lists all fields within the data record. In addition, "(" and ")" are options in this pulldown that can be used to nest (or group together) query phrases within the full query.
- 4. The fourth field will automatically change based on the selection that was made for the third field. Table 1 shows the possible values for the fourth field based on the input of the third field:

3rd Field Type	4th Field Displays	Type of Information to Enter in Input Box
PRN	<, <=, >, >= and =.	record number
Text or TextArea Field	"contains"	text string
Text or TextArea Field	"is empty"	nothing
Pulldown Menu or YesNo Field	is one of	select value(s) from menu
RelNum	=	select value from menu or leave as "*"
Date	"before", "on or after"	date entered in the format that matches the date and time settings in
Date	"is empty"	nothing
Date	"within the"	Select "previous" or "next", enter an integer for the number of increments desired and select a time increment to search within a date range relative to the current date and time
Float	<, <=, >, >= and =.	floating point number
Integer	<, <=, >, >= and =.	non-negative whole number
URL	"contains"	text string
URL	"is empty"	nothing
<clone></clone>	"is"	true (if record is a clone) or false
<full search="" text=""></full>	"(blank)"	enter a text string in Search for field, select one or more Text or TextArea fields in the in field, select a Search Method in the using field. Review Full Text Search for more details.
("(blank)"	N/A
)	"(blank)"	N/A

The selections made in the pulldowns determine what information should be entered into the Input box below the pulldowns. Table 1 describes the type of information that should be entered.

Once the components of the query phrase have been selected, you can click on the Insert button to add the query phrase to the Full Query section. To add another query phrase, click on the Reset button and begin selecting options in the first row.

To edit a query phrase that has been inserted into the Full Query section, click on the query phrase, then click on the Edit button. Modify the phrase in the Query Phrase section, then click on the Update button. The query phrase will be updated in the Full Query section.

To delete a query phrase that has been inserted into the Full Query section, click on the query phrase, then click on the Delete button.

Preview an Advanced Query

Many times you may wish to verify the parameters of an advanced query before running it or perhaps modify it slightly before running it.

To preview, optionally modify, and run an advanced query, follow these steps:

- 1. Select an advanced query in the **Saved Queries** pulldown, then click on the **Preview** button to the right of the Saved Queries pulldown. The parameters for the advanced query appear in the query dialog below.
- 2. Modify the advanced query parameters if desired
- 3. Click on the Run Query button in the query dialog to submit the query

Edit an Advanced Query

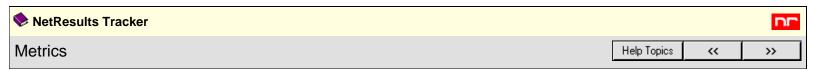
To edit an advanced query, follow these steps:

- Select the advanced query you would like to edit in the Saved Queries pulldown, then click on the Edit button to the right of the Saved Queries pulldown. A
 page containing the current advanced guery parameters will be displayed.
- 2. In the **Full Query** section, click on a query phrase you wish to modify, make the changes in the **Query Phrase** section, then click on the Update button. After you are done making changes to the advanced query, click on the **OK** button to save your updates.

Delete an Advanced Query

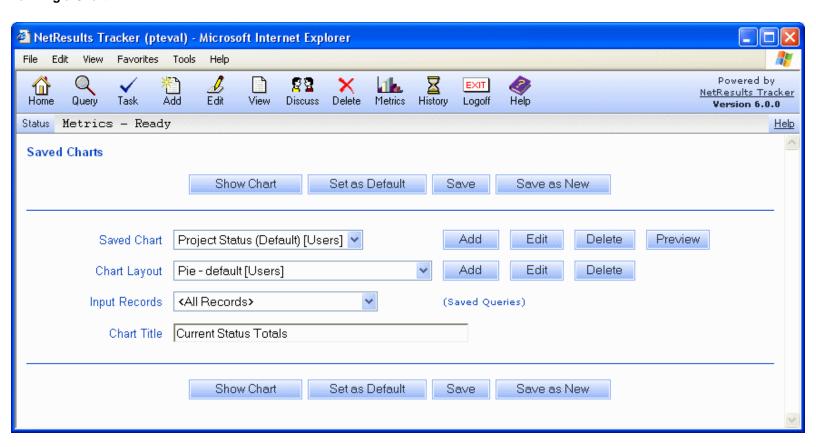
To delete an advanced query, follow these steps:

Select the advanced query you would like to remove in the Saved Queries pulldown, then click on the Delete button to the right of the Saved Queries
pulldown



The Metrics operation is a way to gather and display statistical information based on your Tracker data. The information can be displayed as bar, pie, or line charts using system defined or user defined Chart Layouts to specify the format for the chart. You can limit the records used as input to the statistical calculations (Input Records) by specifying a <u>Saved Query</u>. Only those records which match the Saved Query will be used when performing the statistical calculations. Chart parameters can be stored away for future runs as Saved Charts (for global, group, or personal use).

Running a Chart



A chart can be generated using the "Project Status (Default) [Users]" Saved Chart or any other saved chart that has been added by a Tracker user with the appropriate privilege(s) by performing the following steps:

- 1. Select a chart from the Saved Chart pulldown field (by default, only the default saved chart "Project Status (Default) [Users]" will appear in this field
- 2. The options displayed in the Chart Layout, Input Records, and Chart Title fields will be automatically filled with the settings in the Saved Chart selected. If desired, make other selections for the Chart Layout, Input Records, and Chart Title fields.
- 3. Click on the **Show Chart** button to display the chart.
- 4. Make changes to the formats of the chart displayed by using the **Dynamic Chart Layout Options**. Details on the options available can be found in the **Chart Layout Options** section.
- 5. To change the parameters used to display the chart, click on the Change Parameters button to return to the Chart Selection page.

Printing a Chart

After generating a chart, you can click on the Print link in the upper right corner of the page to print the chart.

Note: Any changes made to the dynamic chart layout options (such as changing from 2D to 3D chart layout) after you generated it will not be in the printed version.

Exporting Chart Data

After generating a chart, click on the **Export** link in the upper right corner of the page to export the chart data to a CSV (comma separated values) file. You can then open this file with another tool such as Microsoft Excel or Crystal Reports.

To create a chart in Microsoft Excel from the exported data, "rubber band" (left-click mouse and drag a rectangle around) the data plus column and row titles (exclude rows 1 through 3, but include the individual row/column titles in row 4 and column A along with the data in your selection) and click the **Chart Wizard** icon (or select Insert->Chart...). Click the **Finish** button in the Chart Wizard to accept the Microsoft Excel default settings for the chart; or make selections, click on the **Next** button,

Metrics

then click Finish to create a chart with custom settings. Please review the Microsoft Excel Help for further information on Excel charts.

Chart Notes

After generating a chart, you can click on the **Notes** link in the upper right corner of the page to see additional information about the format of the chart type being displayed.

Set a Default for the Metrics Page

You can set a default such that whenever you click on the Metrics icon a particular Saved Chart, Chart Layout, Input Records, and Chart Title will be ready to be displayed by clicking on the "Show Chart" button. By setting a default, you will be one click away from seeing your default chart when you go to the Metrics page. This is useful if there is a particular chart you will be displaying on a frequent basis.

To set a default for the Metrics page:

- 1. Select a Saved Chart, Chart Layout, Input Records, and Chart Title to be used to generate your default chart
- 2. Click on the **Set as Default** button at the top of the page

Save

The "Save" operation allows you to change the saved chart layout, input records, or chart title associated with a saved chart. You must have the appropriate privilege to perform this operation on a group saved chart. To make changes to a saved chart on the Metrics main page:

- 1. Click on the Metrics icon in the Button bar
- 2. In the Saved Chart pulldown, select the saved chart you wish to modify
- 3. In the fields for Chart Layout, Input Records, and Chart Title make the desired changes
- 4. Click on the **Save** button

Save as New

The "Save as New" operation allows you to save a new chart based on the settings displayed on the "Select a Saved Chart" page or when <u>previewing</u> a saved chart. On the "Select a Saved Chart" page, this operation allows you to create a new saved chart with different selections for Chart Layout, Input Records, and Chart Title.

To use the "Save as New" operation on the "Select a Saved Chart" page:

- 1. Click on the Metrics icon in the Button bar
- 2. Make selections for the Saved Chart, Chart Layout, Input Records, and Chart Title
- 3. Click on the Save as New button
- 4. Enter a name for the new saved chart, then select whether the saved chart will be a group or personal saved chart. If you select "Group" for the **Saved Chart Type** field, select the group that should have access to this saved chart in the **Group** field.
- 5. Click **OK** to complete the operation

To use the "Save as New" operation after previewing a saved chart, review the instructions in the preview section.

Restrictions Related to Saved Group Charts and Chart Layouts

Depending on the user group privileges that have been assigned to your by your Tracker Administrator, you may only be able to use certain operations on certain saved charts or chart layouts for groups. For example, if you are a member of 2 user groups, but only have privileges to edit group saved charts or chart layouts for one of those user groups, some of the operations (e.g. "Add", "Edit") may be disabled when selecting a saved chart or chart layout for a group where you have limited privileges.

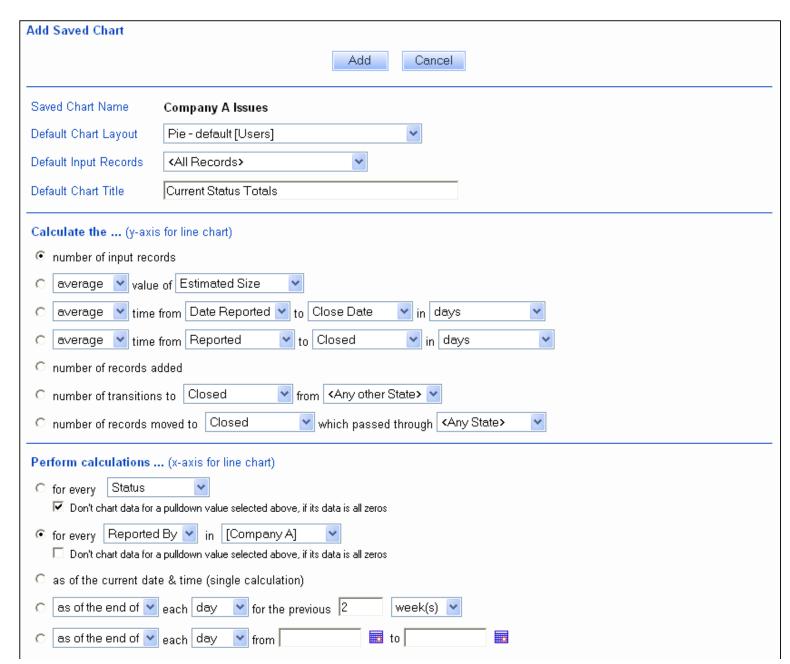
Adding a Saved Chart

To create a saved chart, perform the following steps:

- 1. Click on the Metrics icon in the Button bar
- 2. If desired, select a saved chart in the **Saved Chart** pulldown to be used as a starting point for the new chart, then click on the **Add** button to the right of the "Saved Chart" pulldown

Add Saved Chart	
	Cancel Next »
Saved Chart Name	Company A Issues
Saved Chart Type	Group
Group	[Users]
	Cancel Next »

- 3. Enter a name for your Saved Chart in the Saved Chart Name field
- 4. In the **Saved Chart Type** field, select whether this chart will be a personal or group saved chart. Selecting "Group" indicates that any member of the user group selected in the "Group" field below will be able to access this saved chart.
- 5. If "Group" is selected in the field Saved Chart Type above, select which user group will be able to access this saved chart in the Group field. You will only be able to select from user groups in which you are a member (However, the Tracker Administrator can add saved charts for all user groups). If a user group is not available for selection, you may not be a member of the user group or you may not have sufficient privileges to add a chart for a user group. If you are a member of the user group or are logged in as a user with the Admin privilege, the user group may not have visibility to at least one Project and Form. Only user groups that have visibility to at least one Project and Form (configured in the Admin section) will be available for selection when creating group saved charts.
- 6. Click Next to continue



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- 7. Select the criteria for the Saved Chart. Click here for full details of the criteria selections for a saved chart.
- 8. Click on the Add button

Editing a Saved Chart

To edit a saved chart, perform the following steps:

- 1. Click on the Metrics icon in the Button bar
- 2. Select a saved chart in the Saved Chart pulldown
- 3. Click on the Edit button to the right of the Saved Chart pulldown
- 4. Make changes to the criteria of the saved chart
- 5. Click **OK** to save the changes

Deleting a Saved Chart

To delete a saved chart, perform the following steps:

- 1. Click on the Metrics icon in the Button bar
- 2. Select a saved chart in the Saved Chart pulldown
- 3. Click on the Delete button to the right of the Saved Chart pulldown
- 4. Click **OK** to confirm the operation

If a saved chart is selected as one of the Home Page reports for one or more users, you will not be able to delete the saved chart until another report is selected in the Preferences section for each user.

Preview a Saved Chart

The preview operation allows you to make changes to the criteria of a saved chart before using the "Show Chart" operation to display the chart. This operation is useful when you want to display a chart with a change in the criteria for a saved chart, but want to preserve the saved chart's original settings. This is also useful for creating a new saved chart based on the criteria of an existing saved chart.

To preview a saved chart, perform the following steps:

- 1. Click on the Metrics icon in the Button bar
- 2. Select a saved chart in the Saved Chart pulldown
- 3. Click on the Preview button to the right of the Saved Chart pulldown
- 4. If desired, make changes to the criteria
- Click Save to save your changes. To create a new saved chart with the criteria displayed, click on the Save as New button. Otherwise, click on the Show Chart button to display the chart.
- 6. If you clicked on the Save as New button, you will be prompted to select a name, chart type, and group for the new saved chart.

Saved Chart Criteria

Each saved chart has criteria which defines the data and formats that will be displayed when the chart is generated. The options available when creating a saved chart are explained below:

• Default Chart Layout

The chart layout determines the look and feel of the chart (e.g. whether it is a pie, bar, line chart or table, whether it has a legend, etc.). Select a saved chart layout to be used with this saved chart. For information on creating a Chart Layout, review the Chart Layout section.

Default Input Records

This option determines which records will be included when performing the calculations to generate the chart. Select "<All Records>" to include all records in the database or choose a Saved Query to limit the records included in calculations. The filtering which is done by selecting a Saved Query is done based on the records as they are now (at the time you display the saved chart) with the following exceptions.

If you are calculating the number of records added and you select a saved query, the filtering is done based on the values of the Status, Assignee, and Product fields at the time the record was added. Since those values (Status, Assignee, and Product) are stored in the Record History for the Add

operation, we can use the actual values at the time of the Add operation rather than the current values for the records. So, for example, if you select a saved query which matches only those records where you are the Assignee (e.g. Assigned To Me), the calculations will only include those records where you were the Assignee when the record was first added (as opposed to those records where you are currently the Assignee). For all record values other than Status, Assignee, and Product, the values used for filtering are the current values (since no other fields are stored in the Record History).

o If you are calculating the *number of input records* or the *average value of <field>*, and you are performing the calculation *as of the end of each day/week/month...*, and you select a saved query, the filtering is done based on the values of the Status, Assignee, and Product fields as of the end of each day, week, or month displayed in the chart. Since those values (Status, Assignee, and Product) are stored in the Record History, we can use the actual values as of the dates used in the Chart rather than the current values for the records when doing the filtering. So, for example, if you select a saved query which matches only those records where you are the Assignee (e.g. Assigned To Me), the calculations will only include those records where you were the Assignee on the date used in each calculation (e.g. as of the end of each month for the past six months) as opposed to only including those records where you are currently the Assignee. For all record values other than Status, Assignee, and Product, the values used for filtering are the current values (since no other fields are stored in the Record History).

Default Chart Title

Enter a title to be displayed at the top of the chart

• Calculate the ... (y-axis for a line chart)

Select a calculation to be done on the set of records you chose in "Default Input Records". If you selected a Chart Layout to produce a line chart, the selection made in this section will become the y-axis when the chart is displayed.

o number of input records

Selecting this option indicates that the number of records included in the chart data will match the number of input records determined selection in the "Default Input Records" field.

Example 1: If you select this option and "<All Records>" is selected for "Default Input Records", the chart data will include all records in the database. **Example 2:** If you select this option and a saved query is selected for "Default Input Records", the chart data will display all records in the database that match the criteria in the saved query selected.

o calculated value of an Integer or Float field

Selecting this option indicates that a calculation (average, total, minimum, maximum) should be performed on the values of an Integer or Float field present in the set of records selected in "Default Input Records".

Example: If you select this option and "average" value of "Estimated Size" field, then the chart will calculate the average value of the Float field called Estimated Size within the set of records selected for "Default Input Records".

o calculated time between 2 date fields in a particular date increment

This option allows you to calculate a time (average, total, minimum, maximum) between the values of 2 date fields in a set of records. **Example:** If you select this option and "average" value from "Date Reported" to "Fix Date" in "days", then the chart will calculate the average time in days between the date fields selected for the set of records listed in "Default Input Records".

calculated time for record to progress from one state to another

This option allows you to calculate a time (average, total, minimum, maximum) over a set of records between the time each record was in a particular state (state 1) to the time when the record was in another state (state 2). This calculation uses the Record History to compare the date a record was in state 1 to the date a record was in state 2. The calculation will be the same if a record moved directly from state 1 to state 2 or passed through other states before moving to state 2.

Example: If you select this option and "average" value from "Reported" to "Closed" in "days", then the chart will calculate the average time in days it took a record to go from the Reported state to the Closed state.

o number of records added

Selecting this option indicates that the number of records included in the chart data will match the number of records created in the set of records listed in the "Default Input Records" field.

o number of transitions to a state from another state

This option allows you to calculate the total number of transitions that were made into a state (state 2) from another state (state 1). Both Edit and Task operations are counted as transitions. Selecting the option "<Any State>" for state 1 indicates that all transitions that moved a record from any state (including state 2) into state 2 will be included in the chart data. Selecting the option "<Any Other State>" for state 1 indicates that all transitions that moved a record from any state (except state 2) into state 2 will be included in the calculation. This calculation yields the total number of times a transition between two states occurred. The calculation will count each time the transition occurred even if it occurred on the same record multiple

Example: If you select "Scheduled" as state 2 and "Reported" as state 1, then the calculation will be the total number of times any record moved from the Reported state to the Scheduled state.

o number of records moved to a state which passed through another state

This option allows you to calculate the total number of records that moved to a state (state 2) which passed through another state (state 1). Both Edit and Task operations are included in this calculation. Selecting the option "<Any State>" for state 1 indicates that the calculation will count any record which has moved to state 2 (including from state 2 itself). Selecting a specific state for state 1 limits the calculation to records that passed through state 1 before reaching state 2. Unlike "number of transitions," this calculation will not include multiple "hits" for the same record. Even if the same record passed from state 1 to state 2 multiple times, it will only count the record once as it is counting number of records and not number of transitions. Also, if a record loops while in state 2, the record is assumed to have completed the move from state 1 to state 2, when it first moves into state 2. This calculation can take longer to display the results than other charts because a significant amount of history data can be involved.

• Perform calculations ... (x-axis for line chart)

Select an option to add a further constraint to the data that resulted from the option in the Calculate the ... (y-axis for line chart) option above.

o for every option menu item in a pulldown field

Selecting this option will perform the calculation selected in the Calculate the ... (y-axis for line chart) option above for every option menu item within the pulldown field selected.

Example: If you select this option and "Status" as the pulldown field, the chart will display a separate calculation for each state in your database.

for every state in <State Group> or for every reported by or assigned to in [User Group]

Selecting this option will perform the calculation selected in the **Calculate the ... (y-axis for line chart)** option above for every state included in the State Group selected or for every user (Reporter or Assignee) in the User Group selected. State Groups and User Groups are configured by your Tracker Administrator in the Admin section.

Example: If you select this option with "Reported By" and "[Developers]", the chart will display a separate calculation for each user in the Developers user group who was the reporter of a record that matched the criteria in the Calculate the ... (y-axis for line chart) section.

o as of the current date and time (single calculation)

This option indicates that the chart should perform the calculation selected in the Calculate the ... (y-axis for line chart) option above as of the current date and time.

o as of the end of or during a time increment for the previous X time increments

This option indicates that the chart should generate the calculation selected in the Calculate the ... (y-axis for line chart) option above as of the end of or during each time increment for the number of increments selected.

Example: If you select "as of the end of" each "day" for the previous "2" "weeks", the chart will generate 14 calculations (one value for the calculation as of the end of each day for the last 2 weeks).

Dates are displayed as two part dates (month & day), except that the first (left most) calculation and any calculation that begins a new year will include a three part date (month, day, and year). All date parts are displayed using 2 digit values (with leading zeros if necessary), including the year. The date format is based on the <u>preferences</u> selected by the user who clicked Show Chart. The time zone used for calculations (to determine midnight of a date) is the time zone specified in preferences section of the user who clicked Show Chart. If you select "during each week" or "during each month," each week or month will be displayed as two dates with a hyphen between the two (a date range).

When you select week or month, the calculation may include a partial week or month as the most recent value (month to date, week to date) so that it always includes information up to and including the current day. Selecting month will always give you a partial month for the most recent (right most) value, unless today is the last day of the month. When you select "during each month," the months will always begin on the first of the month. When you select "as of the end of" or "during" each week, for the previous N weeks, you will always get data for a full week in each calculation. However, if you select "as of the end of" or "during" each week for the previous N months or years, you may get a partial week value (so that the data includes exactly N months or exactly N years). To get data that always includes exactly one week for each data point, use N weeks (rather than N months or N years).

o as of the end of or during a time increment for a date range

This option indicates that the chart should generate the calculation selected in the **Calculate the ... (y-axis for line chart)** option above as of the end of or during each time increment for the specified date range. If you do not enter a value for the end of the date range (second date), the chart will use the day on which the chart is run (it will use today as the value). The dates you enter can include a time component, if desired. You can either click on the calendar icon to select a date or you can manually enter a date in the appropriate format (e.g. "mm/dd/yyyy HH:MM:SS AM/PM" or the date & time format selected in the <u>Preferences</u> section.). Click on the day to select the date to be entered into the date field. Click < or > to move backward or forward one month or click << or >> to move backward or forward one year. Click **Now** to set the date field to be the current date and time. Click on **Exclude Time** if you want to exclude the time information from being saved in the date field. For a field where the time information has previously been excluded, click **Set Time** if you wish to include the current time information in the field. Click **OK** to choose the highlighted date to be entered into the date field. Date will be selected and calendar dismissed when a date is clicked when the time is excluded. Dates displayed in red are non-business days according to the **Business Days** option in the <u>Preferences</u> section. Click **Cancel** to dismiss calendar without saving changes.

Example: If you select "during" each "day" from "01/01/2005" to "01/05/2005", the chart will generate 5 calculations (one value for the calculation during each day in the date range specified).

Dates are displayed as two part dates (month & day), except that the first (left most) calculation and any calculation that begins a new year will include a three part date (month, day, and year). All date parts are displayed using 2 digit values (with leading zeros if necessary), including the year. The date format is based on the <u>preferences</u> selected by the user who clicked Show Chart. The time zone used for calculations (to determine midnight of a date) is the time zone specified in preferences section of the user who clicked Show Chart. If you select "during each week" or "during each month," each week or month will be displayed as two dates with a hyphen between the two (a date range).

When you select week or month, the calculations may include a partial week or month at the beginning and/or end, as necessary to fit within the date range. If you select "during each month," months are displayed from the first of the month to the end of the month, with the possible exception of the first and last months displayed. The first month may be a partial month if your date range does not begin on the first of the month. Your last month may be a partial month if your date range does not end on the last day of the month.

. Breakdown calculations by a pulldown field

This option indicates that the calculations generated based on the selections made above should be broken down by a pulldown field. For each calculation, a value will be displayed for each option menu item in the pulldown field selected. In addition, if the chart layout selected for the saved chart contains a legend, one legend entry will be present for each option menu item in the pulldown field selected.

Example: If you select this option and select "Status", the chart will display a calculated value for each state in your database.

• Breakdown calculations by every state in a <State Group> or by every user in a [User Group]

Selecting this option indicates that the calculations generated based on the selections made above should be broken down by each state included in the State Group selected or by each user (Reporter or Assignee) that is a member of the User Group selected. In addition, if the chart layout selected for the saved chart contains a legend, one legend entry will be present for each state or user (Reporter or Assignee) in the State Group / User Group selected.

Example: If you select this option and select "Assigned To" and "[QA]", the chart will display a calculated value for each user in the the QA user group who is

the Assignee for the records that matched the chart criteria.

. Do not breakdown calculations

This option will not breakdown the calculations generated by the chart criteria in the y-axis and x-axis sections above.

• Don't chart data for a breakdown value if its data is all zeros

Checking the box for this option indicates that when the calculations are broken down per the option selected above, a separate calculation should not appear on the chart if its value is zero (e.g. it is zero for any particular option menu item / state / user).

Example: If you select the option "Breakdown calculations by the pulldown field "Product", then check the box for the option "Don't chart data for a breakdown value if its data is all zeros", and the chart data has 0 records that matched the criteria for Product A, the chart will not display a calculation or legend entry for Product A.

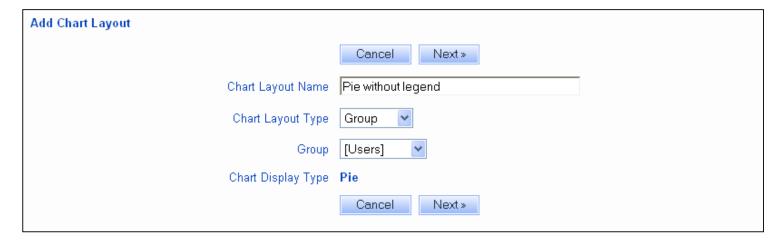
Saved Chart Layouts

A saved chart layout provides the formats used to display a saved chart. A saved chart cannot be displayed without selecting a saved chart layout. Examples of the formats that a saved chart layout provides are:

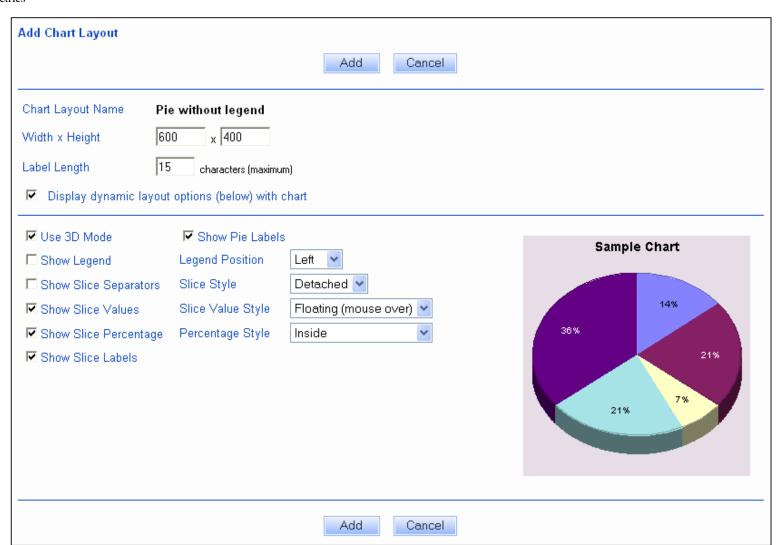
- whether a chart is a bar / pie / line chart or a table
- whether a legend should be displayed
- whether labels should be displayed to reflect the names of the data categories

To create a saved chart layout, perform the following steps:

- 1. Click on the Metrics icon in the Button bar
- 2. In the **Chart Layout** field, select the default saved chart layout that corresponds to the chart type you wish to use. For example, if you wish to create a saved chart layout for a bar chart, select the default saved chart layout called "Bar default [Users]"



- 3. Click on the Add button to the right of Chart Layout field
- 4. Enter a name for your saved chart layout in the Chart Layout Name field
- 5. In the **Chart Layout Type** field, select whether this layout will be a personal or group layout. Selecting "Group" indicates that any member of the user group selected in the **Group** field below will be able to access this saved chart layout.
- 6. If "Group" is selected in the field Chart Layout Type above, select which user group will be able to access this saved chart layout in the **Group** field. You will only be able to select from user groups in which you are a member (However, the Tracker Administrator can add saved chart layouts for all user groups). If a user group is not available for selection, you may not be a member of the user group. If you are a member of the user group or are logged in as a user with the Admin privilege, the user group may not have visibility to at least one Project and Form. Only user groups that have visibility to at least one Project and Form (configured in the Admin section) will be available for selection when creating group saved chart layouts.
- 7. Click **Next** to continue



- 8. Select the options for the Saved Chart Layout. Click here for full details of the options available for a saved chart layout. A sample chart is displayed in the lower right corner of the page. As you make selections to the chart layout options, the sample chart will reflect these changes.
- 9. Click on the Add button to save the chart layout

Chart Layout Options

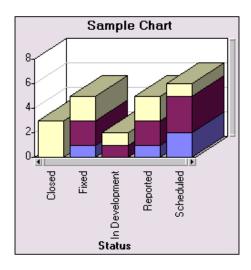
The Chart Layout Options determine the formats used to display the data of the saved chart selected.

Each chart type (bar, pie, line, table) has its own set of chart layout options as follows. Click on the link below to see the options that correspond to the chart type selected. For all chart types, checking the box to the left of the option enables the option to be applied to the chart layout:

Bar Chart Options
Line Chart Options
Pie Chart Options
Table Options

Bar Chart Options

The following options are available for bar chart layouts.



Width x Height

Enter the dimensions of the area that should be used to display the chart. We recommend using "600 x 400" so that the chart area is visible within the bounds of a user's screen when the browser window is maximized. Using a setting like "800 x 600" or "1200 x 800" will cause most users to have to use a browser's scroll bars to see the full chart area.

Label Length

A label in the chart is generated from the records included in the chart data. Enter the maximum number of characters allowed for a label in the chart (up to 50 characters can be displayed). If a data field is longer than the number of characters specified here, it will be truncated when used as a chart label. Examples of labels are the text "Closed" and "Fixed" in the Bar Chart Sample.

• Display dynamic layout options (below) with chart

Checking the box for this option will display the chart layout options below a chart generated by using the "Show Chart" operation. This option enables you to change a chart's layout options dynamically after the chart is displayed without altering the original saved chart layout.

Use 3D mode

Checking the box for this option enables the chart to be displayed in three dimensions instead of two. The Bar Chart Sample has this option enabled.

Bar Type

Determines how the bars should be displayed when the data is broken down by a particular pulldown field. Selecting "Side by side" will display the bar for each category side by side or "Stacked" will display the break down categories stacked upon each other for each bar. The Bar Chart Sample has this option set to "Stacked".

Show Legend

Displays a color coded legend to explain the data categories displayed in each slice

Legend Position

If the Show Legend option is enabled, this option determines whether the legend appears to the left or the right of the chart

Show Bar Labels

Checking the box for this option will display the labels for each bar. This option is enabled in the Bar Chart Sample, resulting in the labels "Closed" and "Fixed" to be included.

Bar Label Style

If **Show Bar Labels** is enabled, this option determines where the bar labels should be displayed. Selecting "Below and Floating" will show the labels below each bar as well as when the mouse is moved over a bar. Choosing "Floating (mouse over)" will only display the label when the mouse is moved over a bar. "Below" will display the label below each bar. The Bar Chart Sample has this option set to "Below".

. Show Bar Outlines

Checking the box for this option will outline each bar. The Bar Chart Sample has this option enabled.

Bar Label Angle

If **Show Bar Labels** is enabled and **Bar Label Style** is set to either "Below and Floating" or "Below", this option determines the angle of the label. If the labels have a large number of characters, using "90" or "270" for this option will yield the best results. The Bar Chart Sample has this option set to "270".

Show Range Adjuster

Checking the box for this option will display the range adjustment bar, which allows you to change the range of the Y-axis by scrolling the range adjuster along the bar. This option is useful for focusing in on a particular area of the chart. The Bar Chart Sample has this option enabled.

Bar Alignment

Select "Vertical" to display the bars vertically or select "Horizontal" to display the bars horizontally. The Bar Chart Sample has this option set to "Vertical".

Show Range Labels

Checking the box for this option will display the labels for the Y-axis. The Bar Chart Sample has this option enabled.

Show Range Lines

Checking the box for this option will display a line for each range label marked on the Y-axis. This option is enabled in the Bar Chart Sample.

Show Value Labels

Checking the box for this option will display the number of items in a category in each bar (or bar section for stacked charts).

Value Label Style

If **Show Value Labels** is enabled, this option determines where the value labels should appear. Selecting "Floating (mouse over)" will only display the value when the mouse is moved over a particular bar, "Inside" will display the values within each bar or "Outside" will display the values above each bar.

Show Bar Scroller

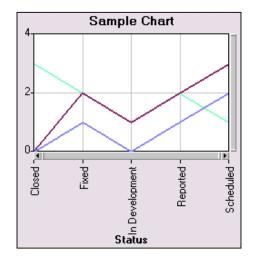
Checking the box for this option will display the bar scroller, which allows you to change the number of bars shown on the X-axis by moving the scroller along the bar. This option is useful for focusing in on a particular area of the chart. This option is enabled in the Bar Chart Sample.

Initial Bar Display

If **Show Bar Scroller** is enabled, this option determines which bars should be displayed on the X-axis. Selecting "All" will display all data, or "First 20" will show the first twenty bars in the data set, or "Last 20" will show the last twenty bars in the data set.

Line Chart Options

The following options are available for line chart layouts.



Width x Height

Enter the dimensions of the area that should be used to display the chart. We recommend using "600 x 400" so that the chart area is visible within the bounds of a user's screen when the browser window is maximized. Using a setting like "800 x 600" or "1200 x 800" will cause most users to have to use a browser's scroll bars to see the full chart area.

• Label Length

A label in the chart is generated from the records included in the chart data. Enter the maximum number of characters allowed for a label in the chart (up to 50 characters can be displayed). If a data field is longer than the number of characters specified here, it will be truncated when used as a chart label. Examples of labels in the <u>Line Chart Sample</u> are "Closed" and "Fixed".

. Display dynamic layout options (below) with chart

Checking the box for this option will display the chart layout options below a chart generated by using the "Show Chart" operation. This option enables you to make changes to a chart's layout options after the chart is displayed without altering the original saved chart layout.

Use 3D mode

Checking the box for this option will display the chart in three dimensions instead of two.

Show Stacked

Checking the box for this option will display the lines for each break down category stacked on top of each other.

Show Legend

Checking the box for this option will display a color coded legend to explain the data categories displayed on each line.

Legend Position

If the Show Legend option is enabled, this option determines whether the legend appears to the left or the right of the chart

Show Value Labels

Checking the box for this option will display the number of items in a category at each data point on the line.

Value Label Style

If the option **Show Value Labels** is enabled, this option determines where the values should appear. Selecting "Point" will display each value on the data point on the line. Choosing "Outside" will display each value above the data point on the line.

Show Value Scroller

Checking the box for this option will display the value scroller, which allows you to change the values shown on the X-axis by moving the scroller along the line. This option is useful for focusing in on a particular area of the chart. This option is enabled in the <u>Line Chart Sample</u>.

Initial Value Display

If the option **Show Value Scroller** is enabled, this option determines which values should be displayed on the X-axis. Selecting "All" will display all data, "First 20" will show the first twenty points in the data set or "Last 20" will show the last twenty points in the data set.

Show X-Axis Labels

Checking the box for this option will display labels for each point on the X-axis. This option is enabled in the Line Chart Sample, resulting in the text "Closed" and "Fixed".

X-Axis Label Angle

If the option **Show X-Axis Labels** is enabled, this option determines the angle of the label. If the labels have a large number of characters, using "90" or "270" for this option will yield the best results. The <u>Line Chart Sample</u> has this option set to "270".

Show X-Axis Lines

Checking the box for this option will display a line for each category listed on the X-Axis. This option is enabled in the Line Chart Sample.

• Show Range Lines

Checking the box for this option determines whether lines should be displayed for each value marked on the Y-axis. The <u>Line Chart Sample</u> has this option enabled.

Show Range Labels

Checking the box for this option will display the labels for the Y-axis. The Line Chart Sample has this option enabled.

Show Range Adjuster

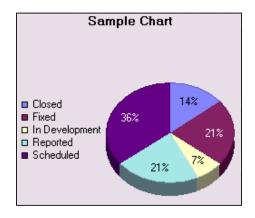
Checking the box for this option will display the range adjustment for the Y-Axis, which allows you to change the range of the Y-axis by scrolling the range adjuster along the bar. This option is useful for focusing in on a particular area of the chart. This option is enabled in the Line Chart Sample.

Show Value Highlights

Checking the box for this option will display a circle at each point on the line that represents a data value.

Pie Chart Options

The following options are available for pie chart layouts.



Width x Height

Enter the dimensions of the area that should be used to display the chart. We recommend using "600 x 400" so that the chart area is visible within the bounds of a user's screen when the browser window is maximized. Using a setting like "800 x 600" or "1200 x 800" will cause most users to have to use a browser's scroll bars to see the full chart area.

Label Length

A label in the chart is generated from the records included in the chart data. Enter the maximum number of characters allowed for a label in the chart (up to 50 characters can be displayed). If a data field is longer than the number of characters specified here, it will be truncated when used as a chart label.

. Display dynamic layout options (below) with chart

Checking the box for this option will display the chart layout options below a chart generated by using the "Show Chart" operation. This option enables you to make changes to a chart's layout options after the chart is displayed without altering the original saved chart layout.

Use 3D mode

Checking the box for this option will display the chart in three dimensions instead of two. The Pie Chart Sample has this option enabled.

Show Pie Labels

Checking the box for this option displays the label for each pie (category) when multiple pies are included in the same chart.

Show Legend

Checking the box for this option will include a color coded legend to explain the data categories displayed in each slice. The Pie Chart Sample has this option enabled.

Legend Position

If the **Show Legend** option is enabled, this option determines whether the legend appears to the left or the right of the chart. This option is set to "Left" in the Pie Chart Sample.

Show Slice Separators

Checking the box for this option will display lines (borders) to separate each pie slice.

Slice Style

This option determines how a pie slice should be formatted when it is selected (by double clicking on a particular pie slice). Selecting "Detached" displays the selected pie slice slightly removed from the rest of the pie, or "Circle" adds a circle inside the slice to note which one is selected, or "Triangle" adds a triangle inside the slice to note which one is selected.

• Show Slice Values

Checking the box for this option will display the number of items that matched the category represented in each pie slice.

Slice Value Style

If the option **Show Slice Values** is enabled, this option determines where the values should appear. Selecting "Floating (mouse over)" will only display the value when the mouse is moved over a particular pie slice, or "Inside" will display the values in each pie slice.

Show Slice Percentage

Checking the box for this option will display the percentage of items that matched the category represented in each pie slice. The Pie Chart Sample has this option enabled.

. Slice Percentage Style

If **Show Slice Percentage** is enabled, this option determines where the percent value should appear. Selecting "Floating (mouse over)" will only display the value when the mouse is moved over a particular pie slice, or "Inside" will display the values in each pie slice. The <u>Pie Chart Sample</u> has this option set to "Inside".

Show Slice Labels

Checking the box for this option will display the label for each category when the mouse is moved over a particular pie slice.

Table Options

The following options are available for charts displayed as a table.

Sample Chart			
Win Linux Total			
Closed	26	32	58
Fixed	132	276	408
Total	158	308	466

Label Length

A label in the chart is generated from the records included in the chart data. Enter the maximum number of characters allowed for a label in the chart. The maximum value is 50 characters, which is set for this option by default. If a data field is longer than the number of characters specified here, it will be truncated when used as a chart label. An example of the Chart Label is the text "Closed" and "Fixed" in the Table Sample.

Value Label Style

Select whether the data values should be displayed as rows or columns in the table The Table Sample shows the data values in rows.

Show Row Totals

Checking the box for this option will include a column that has the sum of the data values for each row displayed. The <u>Table Sample</u> has this option enabled, resulting in the "Total" column displayed with values "58" and "408".

• Show Column Totals

Checking the box for this option will include a row that has the sum of the data values for each column displayed. The <u>Table Sample</u> has this option enabled, resulting in the "Total" row displayed with values "158" and "308".

Edit a Chart Layout

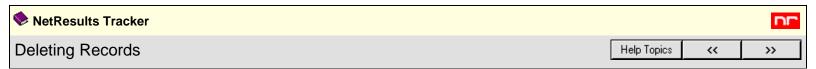
To edit a chart layout, perform the following steps:

- 1. Click on the Metrics icon in the Button bar
- 2. In the Chart Layout field, select the layout you wish to modify
- 3. Click on the Edit button to the right of the Chart Layout field
- 4. Make changes to the layout, then click **OK**

Deleting a Chart Layout

To delete a chart layout, perform the following steps:

- 1. Click on the Metrics icon in the Button bar
- 2. In the Chart Layout field, select the layout you wish to modify
- 3. Click on the **Delete** button to the right of the Chart Layout field
- 4. Click **OK** to confirm the operation



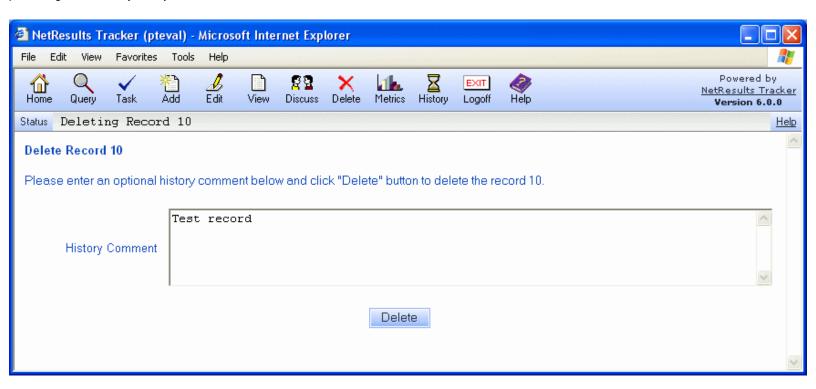


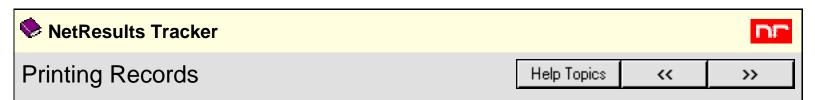
To delete a record:

- 1. Click on the Delete icon in the Button Bar
- 2. Enter the PRN of the record you wish to delete and click **OK**
- 3. Enter information into the **History Comment** field
- 4. Click on the **Delete** button to proceed, click **OK** when prompted to confirm this operation
- 5. A confirmation page will be displayed. If you wish to delete another record, enter the PRN for the record in the **Delete another record** field and click on the **Delete** button. Or, click on either the **Go To Home Page** or **Go To Last Query Results** buttons

Note that when you delete a record, by default, Tracker does not remove it from the database. Instead the "Deleted" field of the record is set to "Yes". By default, queries do not include such deleted records; however, deleted records can be included in the query results by setting the "Deleted" field to "Yes" or "*" when defining the query criteria. If, at a later time, you would like to make this record visible again, you can directly edit the record and change "Deleted" attribute to the value "No".

However, if your Tracker administrator has changed the default delete behavior, the delete may be permanent. Check with your Tracker administrator before performing a delete that you may wish to recover.





In order to print documents from Tracker, you can click on the **Print** link present on the Home, Query History, Metrics and View pages of Tracker to print the contents of the frame where the record(s) are displayed.

To print the reports displayed on the Home Page, go to the Home Page and click on the Print link to the right of the Report Pulldown at the top of the Home Page report you wish to print.

To print Query Results, run the query, then select either Table or Text for the format. Table format resembles the same table as shown on the Query Results page. Text format removes the table layout and lists each record sequentially from top to bottom. Click on the Print link in the upper right corner to begin printing the query results.

To print History reports, run the History guery, then click on the Print link in the upper right corner.

To print charts generated on the Metrics page, run the chart, then click on the Print link in the upper right corner.

Please note that when the preference <u>Exclude Time From Reports</u> is enabled and a Date field is displayed in the report layout, the time information will not be included (only the date) when print previewing or printing a report on the Query, Home or History pages.

To print invidual records from the View Page, click on the **Format for Printing** link in the upper right corner to display a printer-friendly format of the View Page, then click on the Print link in the upper right corner. This method allows you to print an individual record with the full content of each field.

To print this Tracker help file, there are 2 ways to print out the complete set of files.

Use Print All Linked Documents Option

Go to the <u>Table of Contents</u>, then select File > Print in your browser to launch the print properties dialog. Click on the option tab, then check the box for the option called "Print all linked documents". This will print the table of contents and each of the subsections listed as clickable links (each individual Help section). The availability of the "print all linked documents" option may depend on your operating system. If the option is not available, use the next method described below.

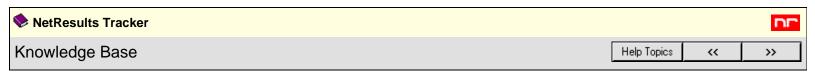
Print via Windows Explorer

This method will print all of the Help section, but the pages will need to be manually sorted. In Windows Explorer, browse to the directory where Tracker is installed. Typically,

C:\Inetpub\wwwroot\NetResultsTracker\workgroup, where workgroup is ptdev, ptweb, pteval, etc. In the workgroup folder will be a subdirectory called Help. In the Help folder, there are the following directories: Admin, Install, Std, UMS and WMS. In each of these folders there will be a table of contents file. It is admin_toc.htm for Admin, install_toc.htm for Install, bots_toc.htm for Std, ums_toc.htm for UMS and wms_toc.htm for WMS. Print each of these files first. Then go into the Admin directory and select all of the files,

then right-click and select print. Do the same for the files in the Install, Std, UMS and WMS folders. You can use the printed table of contents files to help you sort the remaining web pages. There is one web page for each table of contents entry. The corresponding title is at the top of each web page.

If you wish to print information other than items mentioned above, use your browser's print functionality to print the information.



Tracker can be configured as a Knowledge Base. When the Knowledge Base feature is enabled, you can perform searches using the Knowledge Base Search Page to find the information you are seeking.

Knowledge Base Search Page

To search the Knowledge Base for information, browse to the Knowledge Base Search Page by going to

http://servername/workgroup/kb/search.asp

where **servername** is the TCP/IP host name of the machine where the Tracker server software is installed, and **workgroup** is the name of the Tracker workgroup (e.g. pteval) you wish to access. If you are not sure where Tracker was installed on your network, please ask your Tracker Administrator.

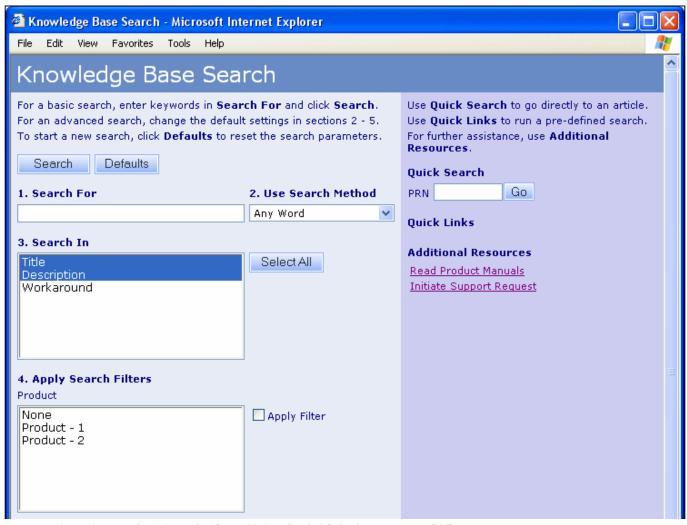
Performing a Search

To perform a **basic search** of the knowledge base, enter keywords in the **Search Words** field described below, then click on the **Search** button. If you wish to skip to the information about the <u>Results Page</u> or the <u>Knowledge Base Articles</u>. Click on one of the following links:

- Results Page
- Knowledge Base Articles

To perform an **advanced search**, make selections in the available options on the Search Page, then click on the **Search** button to return the results. The options are described in detail below. Click on the **Defaults** button to return all components on the Search page to their default selections. This will clear any criteria or selections you have made in the Search Page.

A sample Knowledge Base Search Page is displayed below.



Knowledge Base

ge Buse	
5. Use Search Preferences	
Search what's new within last all 💌 days	
Display 10 🕶 results per page	
Open search results item in the same 💌 browser window	
Search Defaults	
Powered by <u>NetResults Tracker</u>	
Tracker Support Tracker Sales	<u> </u>

Depending on the configuration set by your Tracker Administrator for the Search Page, the following components may be available on the Search Page to use when performing a search:

Search Words

Enter a key word(s) or phrase to be used as search criteria in the space provided. In the example above, the Search Words field is called 1. Search For.

Search Methods

Select the method that should be used when performing the search. One or more of the following choices may be available for selection: Any Word, All Words, Exact Phrase. In the example above, the Search Methods pulldown is called **2. Use Search Method**.

When choosing Any Word, the search will return all articles which contain at least one word entered in to the Search Words field.

When choosing All Words, the search will return all articles which contain all words typed into the Search Words field.

When selecting Exact Phrase, the search will return all articles which contain the exact string of words as entered into the Search Words field.

When selecting **Boolean Expressions**, the search will return all articles that match the Boolean Expression entered using operators **AND** or **OR**. A + sign can be used as "AND".

The table below shows examples of the search results obtained by entering "access denied" as the **Search For** with each of the different **Search Method**.

Search Words	Search Method	Results
access denied	Any Word	The search will return all articles which contain the word "access" OR the word "denied".
access denied	All Words	The search will return all articles which contain both "access" AND "denied".
access denied	Exact Phrase	The search will return all articles which contain the string "access denied".
access OR denied	Boolean Expression	The search will return all records which contain the word "access" OR the word "denied".
access AND denied	Boolean Expression	The search will return all records which contain the word "access" AND the word "denied".

Search Fields

Select the fields in each article that should be used when performing the search. In the sample Search Page at the top of this section, Search Fields is called 3. Search In. The fields you select will be searched to see if they contain the key word(s) you entered in the Search Words field.

To select a field, click on it so that it is highlighted. To select multiple fields, click on the fields you wish to select while holding down the CTRL button on your keyboard. To select all fields in the list, click on the Select All button to the left of the Search Fields list.

Search Filters

Select a value(s) in a field to be used as a filter for the search. In the sample Search Page at the top of this Help section, the Search Filters option is called **4. Apply Search Filters**. The value(s) you select will be used to limit the search results to only those articles which match the value(s) you selected.

To select a value, click on it so that it is highlighted. To select multiple values, click on the values while holding down the **CTRL** button on your keyboard. Check the **Apply Filter** box to the right of the field to limit the search results based on the values selected for the field. Uncheck the **Apply Filter** box if you do not wish to limit the search results based on the field to the right of the check box.

Using the sample Search Page as an example, the values "Defect" and "Hot Fix" are selected as search filters, indicating that the search results should only include articles that have "Defect" or "Hot Fix" selected as the "Article Type".

Search Preferences

The Search Page may be configured to allow you to select preferences to be applied to the results of your search. In the sample Search Page at the top of this section, the preferences are displayed under **5. Search Preferences**. The preferences described below may be available on the Search Page:

- Search what's new within the last given number of days from a Date Field narrows the search results to be articles that were modified within the last X number of days. The available choices for number of days are all, 2, 7, 14, 30, 60, 90, 180.
- Display a given number of results per page sets the number of articles that will be displayed per page in a list as the result of a search. The choices for the number of results per page are 10, 20, 30, 50, 100.
- Open search results item in same or new window allows you to choose whether the list of results are displayed in the same browser window as the Search Page or are opened in a new browser window.

Quick Search

If you know the number (may be called Article ID, PRN, Record Number, or another name) of the Knowledge Base article you want to see, type this number into the **Quick Search** section on the right pane of the Search Page, then click on the **Go** button. This will immediately display the Knowledge Base article you requested. The Quick Search field is called **Article ID** in the sample Search Page shown at the top of this section.

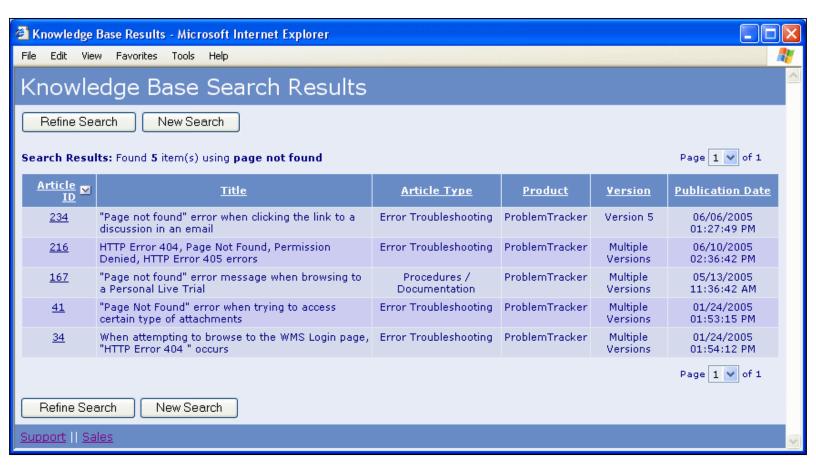
Quick Links and Additional Resources

Your Tracker Administrator may have included a section called Quick Links in the right pane of the Search Page. If so, clicking on one of the Quick Links displayed will perform a pre-defined search and display the results. The sample Search Page at the top of this Help section includes 2 Quick Links: "Articles added in the last 7 days" and "Known Issues in the Latest Version".

Other useful information may be displayed such as links to other web sites or documentation. An example of this type of information can be found in the **Additional Resources** section in the right pane of the sample Search Page above.

The Results of a Search

After clicking on the Search button or clicking on one of the Quick Links, the Knowledge Base will be searched to find any articles that match the criteria entered in the Search page. The articles that match the criteria will be displayed on the Results page similar to the sample below. The example below displays the result of a search for articles that contain the keyword "page".



At the top of the Results page, the total number of records that matched the search criteria will be displayed at the top. If there are multiple pages of results, you can jump to another page of results using the page pulldown at the top right corner of the Results page. You can click on the heading of any **underlined column** to dynamically sort the results by that field. To view the contents of an article, click on the **Article Number**. The **Article Number** is always the first column on the left of the Results page, but the name of this field may be different (it may be called Record Number, PRN, or something else). A sample article is displayed below.

Refine Search

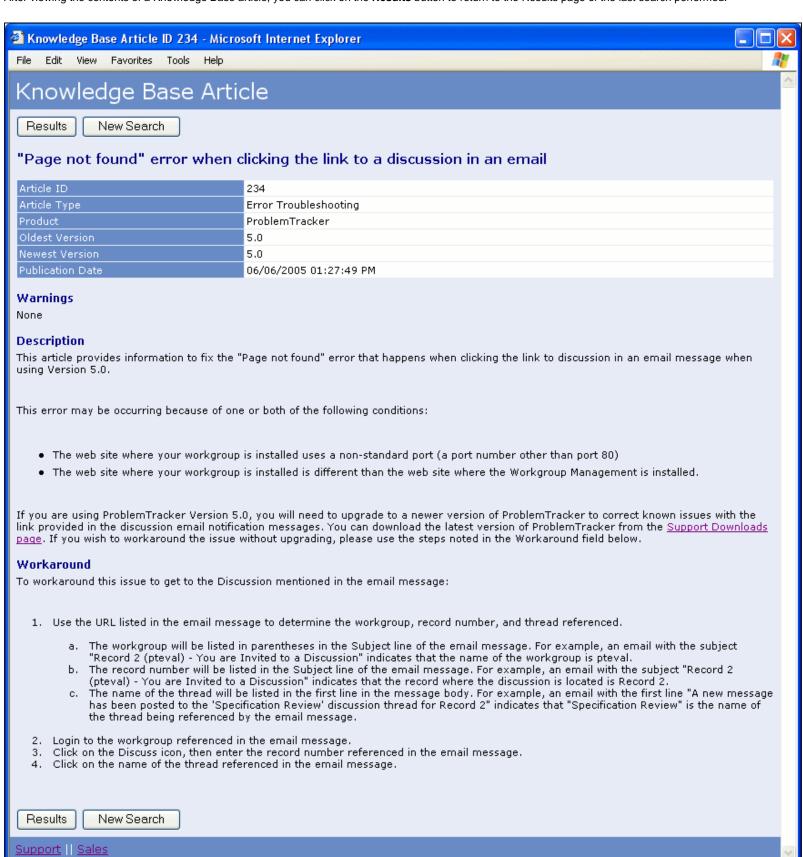
To perform another search based on the criteria used to generate the current results, click on the **Refine Search** button. Clicking on the **Refine Search** button will return you to the Search page, preserving the criteria you entered to run the previous search.

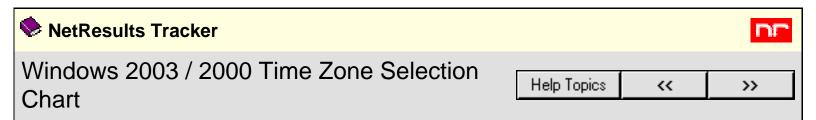
New Search

To perform a new search, click on the **New Search** button. Clicking on the **New Search** button will return you to the Search Page with defaults selected and any keywords used in the previous search will no longer be displayed.

Regulte

After viewing the contents of a Knowledge Base article, you can click on the **Results** button to return to the Results page of the last search performed.





The following is a list of time zones that are supported by Tracker when installed on a Windows 2003 / 2000 system. Entries with (*) are only available in Windows 2003.

Time Zone Offset (in Hours)	Time Zone	System Time Zone (as displayed in Date/Time Settings)
-12:00	Dateline Standard Time	Eniwetok, Kwajalein
-11:00	Samoa Standard Time	Midway Is, Samoa
-10:00	Hawaiian Standard Time	Hawaii
-10:00	Alaskan Standard Time	Alaska
-08:00	Pacific Standard Time	Pacific Time (US & Canada); Tijuana
-07:00	Mexican Standard Time [La Paz] *	Chihuahua, La Paz, Mazatlan
-07:00	Mountain Standard Time	Mountain Time (US & Canada)
-07:00	Mountain Standard Time [Arizona]	Arizona
-06:00	Central Standard Time	Central Time (US & Canada)
-06:00	Mexico Standard Time	Mexico City, Tegucigalpa
-06:00	Canada Central Standard Time	Saskatchewan
-06:00	Central America Standard Time	Central America
-05:00	Eastern Standard Time	Eastern Time (US & Canada)
-05:00	Eastern Standard Time [Indiana (East)]	Indiana (East)
-05:00	SA Pacific Standard Time	Bogota, Lima, Quito
-04:00	Atlantic Standard Time	Atlantic Time (Canada)
-04:00	SA Western Standard Time	Caracas, La Paz
-04:00	Pacific SA Standard Time	Santiago
-03:30	Newfoundland Standard Time	Newfoundland
-03:00	SA Eastern Standard Time	Buenos Aires, Georgetown
-03:00	E. South America Standard Time	Brasilia
-03:00	Greenland Standard Time	Greenland
-02:00	Mid-Atlantic Standard Time	Mid-Atlantic

-01:00	Azores Standard Time	Azores
-01:00	Cape Verde Standard Time	Cape Verde Is
00:00	Universal Coordinated Time	Casablanca, Monrovia
00:00	Greenwich Mean Time	Greenwich Mean Time: Dublin, Edinburgh, Lisbon, London
+01:00	Romance Standard Time	Amsterdam, CopenHagen, Madrid, Paris, Vilnius
+01:00	W. Central Africa Standard Time	West Central Africa
+01:00	Central European Standard Time	Belgrade, Sarajevo, Skopje, Sofija, Zagreb
+01:00	Central Europe Standard Time	Bratislava, Budapest, Ljubljana, Prague, Warsaw
+01:00	W. Europe Standard Time	Brussels, Berlin, Bern, Rome, Stockholm, Vienna
+02:00	Egypt Standard Time	Cairo
+02:00	South Africa Standard Time	Harare, Pretoria
+02:00	Israel Standard Time	Israel
+02:00	E. Europe Standard Time	Bucharest
+02:00	FLE Standard Time	Helsinki, Riga, Tallinn
+02:00	GTB Standard Time	Athens, Istanbul, Minsk
+03:00	Arab Standard Time	Kuwait, Riyadh
+03:00	E. Africa Standard Time	Nairobi
+03:00	Arabic Standard Time	Baghdad
+03:00	Russian Standard Time	Moscow, St. Petersburg, Volgograd
+03:30	Iran Standard Time	Tehran
+04:00	Arabian Standard Time	Abu Dhabi, Muscat
+04:00	Caucasus Standard Time	Baku, Tbilisi
+04:00	Afghanistan Standard Time	Kabul
+05:00	West Asia Standard Time	Islamabad, Karachi, Tashkent
+05:00	Ekaterinburg Standard Time	Ekaterinburg
+05:30	India Standard Time	Bombay, Calcutta, Madras, New Delhi
+05:45	Nepal Standard Time	Kathmandu
+06:00	Central Asia Standard Time	Almaty, Dhaka

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Rangoon Bangkok, Hanoi, Jakarta Krasnoyarsk
Bangkok, Hanoi, Jakarta Krasnoyarsk
Krasnoyarsk
ng, Chongqing, Hong Kong, Urumqi
Perth
Singapore
Taipei
Irkutsk, Ulaan Bataar
Osako, Sapporo, Tokyo
Seoul
Yakutsk
Darwin
Adelaide
Canberra, Melbourne, Sydney
Brisbane
Guam, Port Moresby
Hobart
Vladivostok
gadan, Solomon Is, New Caledonia
Fiji, Kamchatka, Marshall Is
Auckland, Wellington
Nuku'alofa